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THE
BIRDS OF ASIA.

BY
JOHN GOULD, F.R.S.,

FL.S., V.P. AND F.Z.S., M.E.S., F.R.GEOGR.S., M.RAY S., CORR. MEMB. OF THE ROYAL ACADEMY OF SCIENCES OF TURIN; OF THE SOC. OF THE MUSEUM
OF NAT. HIST. OF STRASBURG; FOR. MEMB. OF THE NAT. HIST. SOC. OF NÜRNBERG, AND OF THE IMP. NAT. HIST. SOC. OF MOSCOW;
HON. MEMB. OF THE NAT. HIST. SOC. OF DARMSTADT; OF THE NAT. HIST. AND THE NAT. HIST. AND MED. SOCS. OF
DRESDEN; OF THE ROY. SOC. OF TASMANIA; OF THE ROY. ZOOL. SOC. OF IRELAND; OF THE PENZANCE
NAT. HIST. SOC.; OF THE WORCESTER NAT. HIST. SOC.; OF THE NORTHUMBERLAND,
DURHAM, AND NEWCASTLE NAT. HIST. SOC.; OF THE IPSWICH MUSEUM; OF
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DEDICATED TO THE HONOURABLE EAST INDIA COMPANY.

IN SEVEN VOLUMES.

VOLUME III.

LONDON:

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

PUBLISHED BY THE AUTHOR, 26 CHARLOTTE STREET, BEDFORD SQUARE.

1850—1883.

LIST OF PLATES.

VOLUME III.

NOTE.—As the arrangement of the Plates in the course of publication was impracticable, the Numbers here given will refer to them when arranged, and the Plates may be quoted by them.

PLATE			PART	DATE.
1.	<i>Turdus fuscatus</i>	. . . Clouded Thrush	IV.	November 1852.
2.	„ <i>ruficollis</i>	. . . Red-throated Thrush	„	„ „
3.	„ <i>Gouldi</i>	. . . Gould's Thrush	XXV.	March 1873.
4.	<i>Merula unicolor</i>	. . . Affghan Thrush	X.	June 1858.
5.	„ <i>castanea</i>	. . . Chestnut-coloured Merula	XI.	May 1859.
6.	„ <i>albocincta</i>	. . . White-collared Merula	„	„ „
7.	„ <i>Boulboul</i>	. . . Grey-winged Merula	„	„ „
8.	<i>Petrocincla erythrogastra</i>	. . . Chestnut-bellied Rock-Thrush	XV.	June 1863.
9.	<i>Spizixos canifrons</i>	. . . Crested Spizixos	XVIII.	April 1866.
10.	„ <i>semitorques</i>	. . . Chinese Spizixos	XVIII.	„ „
11.	<i>Ixus sinensis</i>	. . . Chinese Bulbul	XXVI.	August 1874.
12.	<i>Hypsipetes nigerrima</i>	. . . Formosan Hypsipetes	XVI.	April 1864.
13.	<i>Phyllornis Javensis</i>	. . . Javanese Phyllornis	XIII.	May 1861.
14.	„ <i>Hardwicki</i>	. . . Hardwick's Phyllornis	„	„ „
15.	„ <i>Hodgsoni</i>	. . . Hodgson's Phyllornis	„	„ „
16.	„ <i>Malabaricus</i>	. . . Malabar Phyllornis	„	„ „
17.	„ <i>Jerdoni</i>	. . . Jerdon's Phyllornis	„	„ „
18.	„ <i>cyanopogon</i>	. . . All-green Phyllornis	„	„ „
19.	<i>Irena cyanea</i>	. . . Malayan Fairy Bluebird	XXXII.	July 1880.
20.	„ <i>criniger</i>	. . . Bornean Fairy Bluebird	„	„ „
21.	„ <i>puella</i>	. . . Indian Fairy Bluebird	XXXIV.	January 1883.
22.	„ <i>cyanogastra</i>	. . . Blue-mantled Fairy Bluebird	XXXIII.	February 1882.
23.	„ <i>melanochlamys</i>	. . . Black-mantled Fairy Bluebird	„	„ „
24.	<i>Copsychus saularis</i>	. . . Dial Bird	XV.	June 1863.
25.	„ <i>Mindanensis</i>	. . . Malaccan Dial Bird	„	„ „
26.	„ <i>suavis</i>	. . . Chestnut-bellied Dial Bird	„	„ „
27.	<i>Myiophoneus (Arrenga) Blighi</i>	. . . Bligh's Whistling Thrush	XXVIII.	July 1876.
28.	„ <i>insularis</i>	. . . Formosan Whistling Thrush	XVI.	April 1864.
29.	<i>Callene albiventris</i>	. . . White-bellied Callene	XX.	„ 1868.
30.	<i>Leioptila annectens</i>	. . . Slender-billed Chat-Thrush	XXXIV.	January 1883.
31.	<i>Conostoma æmodium</i>	. . . Himalayan Conostoma	V.	October 1853.
32.	<i>Sibia melanoleuca</i>	. . . Black-and-white Sibia	XXXIII.	February 1882.
33.	<i>Pomatorhinus erythrocnemis</i>	. . . Red-kneed Pomatorhinus	XVI.	April 1864.
34.	<i>Xiphoramphus superciliaris</i>	. . . Scimitar-bill	IX.	May 1857.
35.	<i>Trochalopteron phœniceum</i>	. . . Crimson-winged Trochalopteron	XXIV.	March 1872.
36.	„ <i>formosum</i>	. . . Beautiful Trochalopteron	„	„ „
37.	„ <i>affine</i>	. . . Allied Thrush	XXVIII.	July 1876.
38.	„ <i>variegatum</i>	. . . Variegated Thrush	„	„ „
39.	„ <i>cineraceum</i>	. . . Cinereous Trochalopteron	XXVII.	March 1875.
40.	„ <i>virgatum</i>	. . . White-eyebrowed Trochalopteron	„	„ „
41.	„ <i>Blythii</i>	. . . Blyth's Laughing Thrush	XXVI.	August 1874.
42.	„ <i>Elliotii</i>	. . . Elliot's Trochalopteron	XXV.	March 1873.
43.	„ <i>melanostigma</i>	. . . Tickell's Laughing Thrush	XXXIII.	February 1882.
44.	<i>Ianthocincla ocellata</i>	. . . Ocellated Ianthocincla	XXV.	March 1873.

LIST OF PLATES.

PLATE			PART	DATE.
45.	Ianthocincla Artemisiæ .	Allied Ianthocincla .	XXV.	March 1873.
46.	„ lunulata .	Lunulated Ianthocincla .	„	„ „
47.	„ Austeni .	Austen's Ianthocincla .	„	„ „
48.	Garrulax Delesserti .	Delessert's Garrulax .	XIX.	May 1867.
49.	„ gularis .	Yellow-throated Garrulax .	„	„ „
50.	„ ruficeps .	Red-crowned Garrulax .	XVI.	April 1864.
51.	„ pœcilorhyncha .	Black-and-yellow-billed Garrulax .	„	„ „
52.	„ galbanus .	Black-chinned Garrulax .	XXVII.	March 1875.
53.	„ picticollis .	Grey-banded Laughing Thrush .	XXVI.	August 1874.
54.	„ chinensis .	Chinese Garrulax .	XXV.	May 1873.
55.	Pterorhinus Davidi .	Père David's Pterorhinus .	XXIII.	March 1871.
56.	Actinodura Egertoni .	Egerton's Actinodura .	XVIII.	April 1866.
57.	„ Nipalensis .	Nepalese Actinodura .	„	„ „
58.	„ Waldeni .	Walden's Actinodura .	XXVII.	March 1875.
59.	„ Ramsayi .	Ramsay's Bee-wing .	XXXIII.	February 1882.
60.	Rimantor malacoptilus .	Long-billed Wren .	XXII.	March 1870.
61.	Drymochares stellatus .	Stellated Shortwing .	XXI.	April 1869.
62.	Turdinulus Roberti .	Roberts's Pygmy Babbler .	XXXIV.	January 1882.
63.	Turdinus brevicaudatus .	Short-tailed Turdinus .	XXIV.	March 1872.
64.	Yuhina diademata .	White-naped Yuhin .	„	„ „
65.	Pellorneum palustre .	Marsh Pellorneum .	„	„ „
66.	Alcippe brunnea .	Brown Alcippe .	XVI.	April 1864.
67.	Cutia Nipalensis .	Nepaul Cutia .	VIII.	May 1856.
68.	Suthora brunnea .	Anderson's Suthora .	XXVIII.	July 1876.
69.	„ munipurensis .	Munipur Suthora .	XXIX.	April 1877.
70.	„ Nipalensis .	White-faced Suthora .	IV.	November 1852.
71.	„ fulvifrons .	Fulvous-fronted Suthora .	„	„ „
72.	„ Webbiana .	Webb's Suthora .	„	„ „
73.	Paradoxornis Austeni .	Austen's Paradoxornis .	XXVI.	August 1874.
74.	„ Heudei .	Père Heude's Paradoxornis .	„	„ „
75.	„ flavirostris .	Paradoxornis .	VI.	July 1854.
76.	„ unicolor .	Long-tailed Paradoxornis .	„	„ „
77.	„ gularis .	Grey-crowned Paradoxornis .	„	„ „
78.	„ ruficeps .	Red-headed Paradoxornis .	„	„ „





TITRUS PISCATIS, P. II.

J. Gould, and H. C. Richter, del et lith.

Hullmandel & Walton, Imp.

TURDUS FUSCATUS, *Pall.*

Clouded Thrush.

Turdus fuscatus, Pall. Zoog., tom. i. p. 451. pl. xii.

—— *dubius*, Naum. Vög. Nacht., Edit. i. Add. p. 22. pl. 4. f. 8. tom. ii. p. 288. pl. 68. figs. 1 & 2.

—— *Naumanni*, Temm. Man. d'Orn., tom. i. p. 170; tom. iii. p. 96.—Brehm, Vög. Deutsch., p. 391.—Naum. Vög. Nacht., 2nd Edit. tom. xiii. pl. 358. figs. 2 & 3 (according to M. Middendorff).—Gould, Birds of Europe, vol. ii. pl. 79.—Gray and Mitch. Gen. of Birds, vol. i. p. 219, *Turdus*, sp. 19.—Cat. of Spec. and Draw. of Mamm. and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 80.—Temm. et Schlegel, Fauna Japonica, p. 61.—Bonap. Consp. Gen. Av. p. 270, *Turdus*, sp. 6.

—— *eunomus*, Temm. Pl. Col., 514.—Bonap. Consp. Gen. Av., p. 270, *Turdus*, sp. 7.

THE present bird is very widely dispersed over Siberia, the northern parts of China, and the island of Japan; solitary individuals have been taken in various parts of Germany, and from its wandering habits it is very probable that its range will not be confined within these limits, and that it will some day or other be included in the list of the Fauna of the British Islands. As is the case with many others of the Russo-Asiatic birds, much confusion exists with respect to its synonymy; some writers being of opinion that the *Turdus dubius* of Naumann and the *Turdus dubius* of Bechstein both have reference to it; but M. Temminck distinctly states that the latter name has been given to one of the stages of plumage of *Turdus atrogularis*; and in order to prevent any confusion arising from the ambiguous term *dubius*, he has given it the name of *Naumanni*, by which it is now generally known; it is certain, however, that the bird was discovered by Pallas in the last century, and accurately described by him in his 'Zoographia Rosso-Asiatica' under the name of *Turdus fuscatus*, a term which, in justice to this great traveller and naturalist, I have felt it only right to retain.

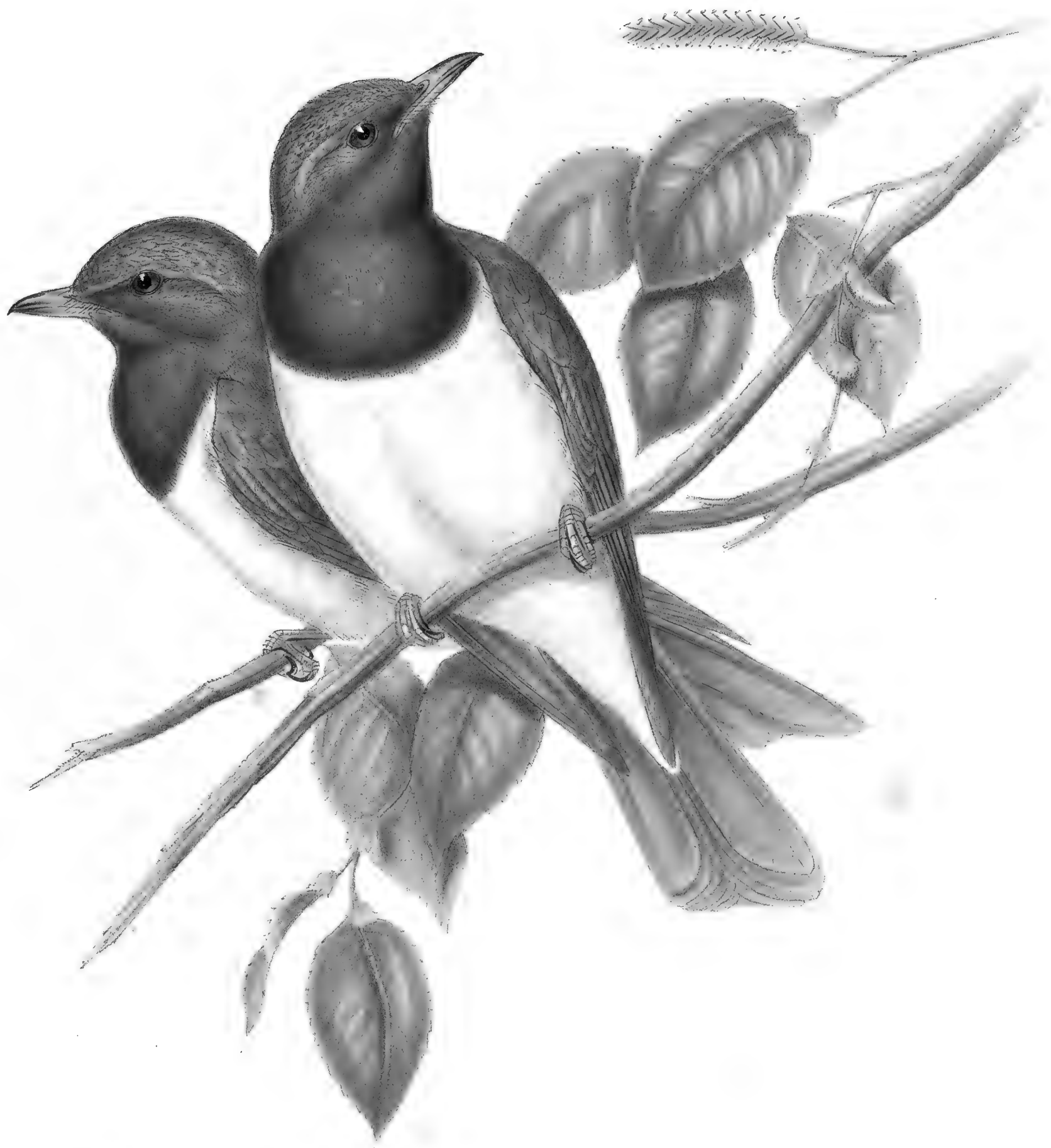
"To judge from the great number of specimens killed in Japan by the Dutch naturalists," say MM. Temminck and Schlegel in their recently published and valuable 'Fauna Japonica,' "this bird appears to be very abundant in that country; Pallas states that he met with it in the alpine forests of Dauria, that it has been observed by Gmelin and Messerschmidt on the borders of the rivers Selenga, Tongoska and Jenisséi, and that Bellings and Merk brought skins from Kamtschatka and the neighbouring islands. Besides a specimen taken at Anhalt Köthen, Naumann mentions many others killed in Silesia and in the neighbourhood of Vienna; but its appearance in Europe can only be considered accidental." Mr. Hodgson states that this species is very rare in the Himalayas, and that examples have been collected at Chusan by Dr. Playfair.

The male has the head and upper surface very dark brown, each feather broadly margined with pale greyish brown, with a tinge of red next the darker colour; wing-coverts, secondaries and primaries very dark brown, broadly margined externally with rufous, passing into greyish brown at the tip; under surface of the wing rufous; a broad stripe over the eye; cheeks, chin and throat buffy white; lores and ear-coverts brownish black; feathers of the flanks brownish black edged with greyish white, the grey margins becoming larger and more conspicuous as the feathers proceed towards the vent; abdomen white; under tail-coverts dark reddish brown largely margined with white; tail very dark brown, edged externally at the base with rufous; bill olive-yellow, passing into black at the tip; feet dark flesh-colour.

The female is similar in colour to the male, except that the superciliary stripe and the throat are more buff, that on each side of the throat there is a series of small, nearly triangular black marks, and that the colouring of the throat and flanks gradually blends instead of being separated by a distinct line of demarcation.

The Plate represents both sexes of the natural size.





Turdus ruficollis, Pall.

Painted and engraved by J. C. Richardson del. et lith.

Printed by A. W. & J. W. & J. W. & J. W.

TURDUS RUFICOLLIS, *Pall.*

Red-throated Thrush.

- Turdus ruficollis*, Pall. Reise, tom. iii. p. 694.—Ib. Zoog., tom. i. p. 452. tab. 23.—Lath. Ind. Orn., vol. i. p. 333.
—Gmel. Edit. Linn. Syst. Nat., tom. i. p. 815.—Gray and Mitch. Gen. of Birds, vol. i. p. 219, *Turdus*,
sp. 20.—Bonap. Consp. Gen. Av., p. 273, *Turdus*, sp. 37.—Cat. of Spec. and Draw. of Mamm. and
Birds presented to the Brit. Mus. by B. H. Hodgson, Esq., p. 81.—Blyth, Cat. of Birds in Mus. Asiat.
Soc. Calcutta, p. 141.—Hodgs. in Journ. Asiat. Soc. Beng., vol. xvi. p. 143.
Red-necked Thrush, Lath. Gen. Syn., vol. iii. p. 31.—Shaw, Gen. Zool., vol. x. p. 278.—Lath. Gen. Hist., vol. v.
p. 27.
Turdus erythrura, Hodgs. in Gray's Zool. Misc., p. 83?
-

I HAVE the pleasure of figuring on the accompanying Plate another of the little-known birds discovered and described by Pallas. The specimens from which the drawing was taken were lent to me by Dr. Hartlaub, and the other Directors of the Museum at Bremen, who had received them from St. Petersburg. I mention this because some differences are found between the Russian specimens and those from the highlands of northern India, the latter being of a larger size, having the rufous colouring of the throat and breast much darker, approaching in fact to chestnut; many of them also have a series of dark spots running down each side of the throat, and the outer tail-feathers slightly margined with blackish brown. It has been hinted by some ornithologists, and asserted by others, that the *Turdus ruficollis* and *T. atrogularis* are one and the same species; and I must say, that on examining the specimens in the British Museum, I was half inclined to consider them identical myself. In the size of the bill, in the length of the wings and tail, and in the colouring of the crown of the head and back, they are precisely alike; but these points of agreement are insufficient to prove that these two birds, so very oppositely coloured in every other respect, are one and the same; and Mr. Hodgson, who has had ample opportunities for observation in the Himalayas, remarks, that *T. ruficollis* is "nearly allied to *T. atrogularis*, but differs in having the neck, breast, supercilium, fore part of the under surface of the wing, and the tail, except at the tip, rufous." In the Bremen specimens I find no trace of the streak of darker feathers on the sides of the neck, the colouring of which is much lighter or of a more sandy red than in the Indian birds, and, as before stated, they are also of a smaller size. The Russian specimens of *T. atrogularis* are also smaller than individuals killed in the Himalayas, and I have never seen a specimen of this latter species with any other than uniform blackish brown tail-feathers; if I had, I should have become a convert to the opinion of those who consider the two birds to constitute but a single species.

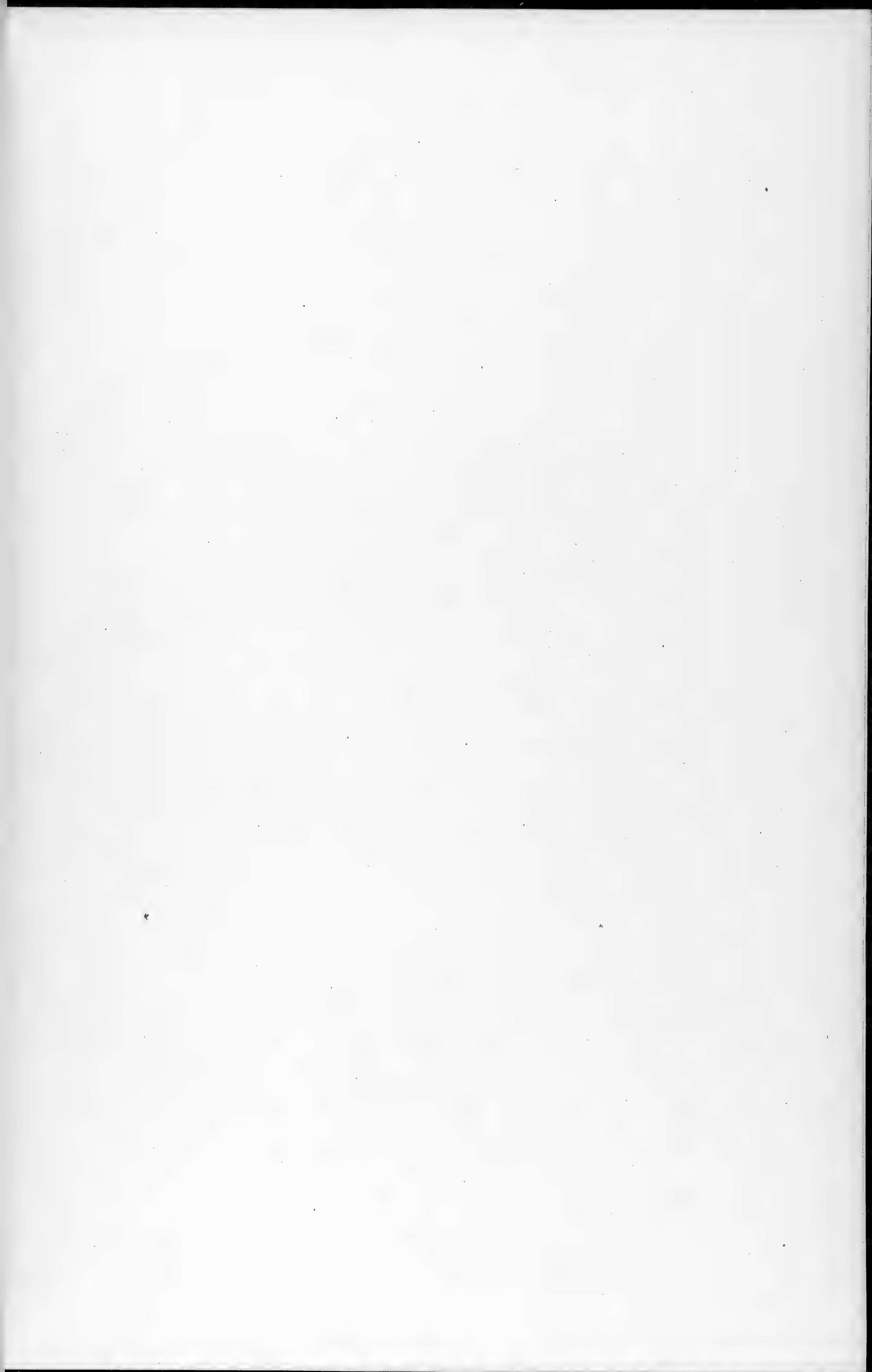
The following notes respecting this species, kindly transmitted to me by M. Middendorff, of St. Petersburg, will be read with interest:—

"I first met with small flocks of this bird during the second week in April, near the River Aldan in south-eastern Siberia, at about $60\frac{1}{2}^{\circ}$ north latitude. They were mingled with and passing through flocks of *Turdus fuscatus*. About the end of April they began to couple. They frequented the densest branches of the coniferous and other trees, and while perched on the tops of the lofty larches the males gave utterance to sweet songs which recalled to my memory the melody of our *Turdus musicus*. Upon proceeding still farther into the country in a south-eastern direction, I lost sight of this interesting bird, and it is to be presumed that it does not occur on the eastern slope of the Stanowój range."

Pallas states that he frequently observed it in the lofty larch-forests of Dauria, especially in the neighbourhood of the River "Condam," passing in vast flocks to its winter-quarters, to which hunger compelled it to proceed through the snow-storms. At other times it dwells in the densest and most remote solitudes of the forest.

Head, all the upper surface and wings greyish brown; lores, superciliary stripe and throat light chestnut; breast, abdomen and under tail-coverts white; two central tail-feathers brown; lateral tail-feathers rufous, becoming browner towards their margins; bill olive-yellow, passing into black at the tip; feet flesh-colour.

The figures are of the natural size.





TURDUS GOULDI, *J. Verr.*

J. Gould & H.C. Richter, del et lith.

Walter, Imp.

TURDUS GOULDI, J. Verr.

Gould's Thrush.

Merula Gouldii, J. Verr. Nouv. Archiv. du Mus., tom. vi., Bull. p. 34, & tom. vii., Bull. p. 32.—David, *ibid.*, tom. vii., Bull. p. 6.

THE French savant, M. Jules Verreaux, having named this Thrush after myself, I should be wanting in courtesy were I not to acknowledge that I duly appreciate the compliment he thereby intended to convey, although the bird is an inhabitant of some of the distant provinces of Thibet, a country too far off for me ever to see, and where my name will probably never be heard.

It is difficult to distinguish generically the differences between the genera *Turdus* and *Merula*. Structurally the Thrush and the Blackbird are very much alike; yet, to say nothing of the differences in the colouring of the sexes of the latter, how different are they in their plumage, their habits, and their economies! Ultimately, I have no doubt, ornithologists will deem it necessary to give more definite characters to each of those genera than have yet been assigned to them, and will in all probability separate the other members of the family still further than at present. This Thibetan bird and several allied species will then hold an intermediate station between *Turdus* and *Merula*. To me the bird is certainly not a true *Merula*; neither do I consider it to be so closely allied to the *M. castanea* of the Himalayas as, it will be seen, M. Verreaux is inclined to believe.

The *Turdus Gouldi* is another of the many interesting discoveries made by the Abbé Armand David; and all that is known respecting it is embodied in the following extract from the seventh volume of the 'Nouvelles Archives du Muséum d'Histoire Naturelle de Paris,' which I have taken the liberty of transcribing. The description and remarks are by M. Jules Verreaux.

"Head and neck a dark earth-brown, paler from the chin to the upper part of the chest; the whole of the body chestnut-red, somewhat darker on the under surface; wings and tail black; under tail-coverts black, with white centres and tips; irides brown; beak yellow.

"The female differs in the head being tinted with grey, which becomes lighter on the neck; the red of the body is also lighter; and the black of the wings and tail is not only paler but tinged with red; it is the same with the under tail-coverts, where the white of the tips and edges of each feather is strongly tinted with red.

"Three examples—namely, a male, an adult female, and an immature female—were killed at Moupin on the 24th of June, 11th of March, and the 1st of November, 1869.

"The difference which exists between this species and the *Merula castanea* of Gould, from the continent of India, is recognizable at a single glance, if it be only by the pale grey head and white neck shown in the drawing of that author in his 'Birds of Asia.' We are happy, then, to give the name of our clever colleague to a species which offers so great an analogy with that which he was the first to describe, and which several modern authors have placed in the genus *Geocichla*, but according to Mr. Jerdon (whom we have recently seen, and whom all the world looks upon as the highest authority of our times in all matters relating to Indian ornithology) is not a true *Merula* in its manners. The Abbé David, who discovered this beautiful species in the forests of the large mountains of Moupin and other Thibetan principalities, tells us that its habits and voice are precisely similar to those of the true Thrush, but that its ordinary cry is weaker and more shrill than that of the Blackbird; it frequents the most solitary woods, where it is not rare, and whence the cold causes it to descend into the valleys in great numbers, especially at the commencement of winter."

The accompanying Plate represents, of the size of life, a male specimen kindly lent to me by Mr. Elliot.





MERULA TNUDOR, Gould.

J. Gould and H. Richter del. A. B. S.

Holmes & Watson Imp.

MERULA UNICOLOR, *Gould.*

Affghan Thrush.

Turdus unicolor, Gould in Proc. of Zool. Soc., Part V. p. 136.

——— ? Gray and Mitch. Gen. of Birds, vol. i. p. 220, *Turdus*, no. 113.

THE *Merula unicolor* is evidently a rare species in those districts of India which have been visited by the collector, for Mr. Blyth does not include it in his "List of the Birds in the Museum of the Asiatic Society at Calcutta," and there is no example of it in the Museum of the Honourable East India Company; it was also absent from the British Museum until the Trustees obtained the original of my description on the dispersion of the Zoological Society's mounted collection. The preservation of this typical specimen has enabled me to verify the species by comparison with two other examples now before me, one of which I obtained from the late Captain Boys, and another which forms part of the collection made by Dr. A. Leith Adams, of the 22nd Regiment, and who procured it in Cashmere; here, then, we have a positively ascertained locality in which the bird is to be found; a point of importance, since neither Captain Boys' nor the original type is labelled with the name of the place in which it was killed.

It seems that, forgetful of having named this species *unicolor* twenty-one years ago, I have more recently proposed another name for it, that of *schistaceus*; I believe and hope, however, that it has not appeared in print. The term *unicolor* originally applied to it is not an inappropriate one when the wings of the bird are closed, or when it is viewed from above; but if the wings are raised, the axillaries will be found to be strongly tinted with orange, as shown in the smaller figure, which is given in order that the species may be more readily recognized. In one of the specimens there is also some white on the lower part of the abdomen and on the under tail-coverts. The following brief note has been furnished by Dr. Adams, and, I regret to say, is all that is known respecting the species.

"This bird appears to be confined to the Cashmerian and surrounding ranges; it is very plentiful in the valley. Its habits very much resemble those of the *Turdus musicus*. Its song, which is composed of a few but little-varied notes, is often repeated. Considerable variety occurs in the colouring of the plumage, some individuals being darker than others. The sexes differ in the male being destitute of spots on the neck and throat."

General plumage ash-grey, lighter beneath; middle of the abdomen, vent, and under tail-coverts white; axillaries and under wing-coverts orange-red.

Dr. Adams states that "the female has the bill and the margins of the eyelids pale yellow; the throat obscurely spotted with black; the breast and under surface ashy white; and the legs pale yellow."

The Plate represents the bird the size of life.





MERULA CASTANEA, Gould

J. Gould and W. C. Richter, del. & lith.

Hellmuth & Witten, imp.

MERULA CASTANEA, *Gould.*

Chestnut-coloured Merula.

- Merula castanea*, Gould in Proc. of Zool. Soc. part iii. p. 185.—Blyth, Journ. Asiat. Soc. Beng. vol. xvi. p. 149.—
Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 162.—Horsf. and Moore, Cat. of Birds in Mus.
East Ind. Comp. vol. i. p. 197.
Turdus castaneus, Gray and Mitch. Gen. of Birds, vol. i. p. 219. pl. 56.—Gray, Cat. of Spec. and Draw. of Mamm.
and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 81.
Geocichla castanea, Bonap. Consp. Gen. Av., p. 268.
Turdus rubrocanus, Hodgs. Gray's Zool. Misc. 1844, p. 82.
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THIS very fine species of *Merula* I had the pleasure of characterizing in the "Proceedings of the Zoological Society" for the year 1835; nine years later, in 1844, it received from Mr. Hodgson the name of *rubrocanus*. In the rich chestnut colouring of its back and under surface, this species stands conspicuously alone among the members of the Indian *Merulidæ*. It is a bird of considerable dimensions, and is doubtless bold and spirited in its actions when seen in its native woods. Its true habitat is the sub-Himalayan range, along the face of which it appears to extend from Nepal to Afghanistan: most of the specimens sent to this country are from Darjiling; but there are examples at the East India House which are said to have been procured by Mr. Pearson in Afghanistan; personally, however, I have never seen one from the latter country.

The sexes present the usual difference in colour and size, the female being somewhat smaller than the male, and her colouring much less bright and contrasted; her wings also are brown instead of black, the chestnut colour of her back and under surface paler, and the band on the neck less clearly defined.

The male has the head, cheeks, and nape ashy grey; at the back of the neck a broad semi-collar of light greyish brown; throat and fore part of the chest buffy white; all the upper and under surface chestnut-red, deepest on the upper part of the back; wings and tail blackish brown; feathers of the lower part of the abdomen and under tail-coverts blackish brown, with a broad stripe of white down the centre of each; the bill, eyelash, and feet appear to have been fine yellow.

The Plate represents both sexes of the natural size.





MERULA ALBOCINCTA.

J. Gould and H. C. Richter, del. et lith.

Holman del. & Wallace. 1874

MERULA ALBOCINCTA.

White-collared Merula.

- Turdus albocinctus* et *albicollis*, Royle, Ill. Himalayan Bot., tab. 8. fig. 3.—Gray and Mitch. Gen. of Birds, vol. i. p. 219.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 81.—Bonap. Consp. Gen. Av., p. 274.
- Merula albocincta*, Blyth, Journ. Asiat. Soc. Beng., vol. xvi. p. 148.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 162.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 197.
- Turdus collaris*, Sorel, Rev. Zool. 1840, p. 2.
- Merula nivicolis*, Hodgs. in Gray's Zool. Misc. 1844, p. 83.
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THE late Dr. Forbes Royle, who by his writings on botany and natural history and many other acquirements distinguished himself as one of the most valuable of the servants of the Honourable East India Company, had the pleasure of first naming this interesting Ouzel, Thrush, or Blackbird—whichever British ornithologists may think proper to apply to it as a trivial name. Dr. Royle (for what reason cannot now be known) gave it two distinctive appellations, *Turdus albocinctus* and *T. albicollis*; it is also the *Merula nivicolis* of Mr. Hodgson, and the *Turdus collaris* of Sorel; all these specific names are equally applicable to it; but it is to be regretted that our systems should have been burdened with four appellations where one would surely have been sufficient.

It must, I think, be admitted that the present bird and *M. castanea* are two most intimately allied species, so much so that it has almost induced me to believe that they are identical; and I throw out this hint to direct the attention of ornithologists to the point, especially those resident in India, rather than aver that such is the case. In their relative admeasurements the two birds are as nearly alike as possible.

Like the *M. castanea*, the *M. albocincta* is a native of Nepal and the more western parts of the Himalayan range, but does not ascend either to the cold region of the snow-line, nor, I believe, descend to the hot forests of the Terai.

The female has all the markings of the male, but her colouring is much less bright and defined; the crown of her head, her back, wings, and tail are brown, while the collar and throat are brownish white.

The male has the head, cheeks, nape, the entire plumage of the upper and under surface, the wings and tail brownish black; throat buffy white slightly striated with brown; lower part of the neck and breast buffy white; round the back of the neck a collar of buffy white stained with brownish grey posteriorly; bill and eyelash orange-yellow; the legs appear to have been the same, but duller.

The Plate represents both sexes of the natural size.





MERTIA BOULBOTT.

J. Gould and H.C. Richter, del. et lith.

Julius Mandel & Walton, imp.

MERULA BOULBOUL.

Grey-winged Merula.

- Lanius bouboul*, Lath. Ind. Orn. Supp., p. 80.—Ib. Gen. Hist., vol. ii. p. 48.—Shaw, Gen. Zool., vol. vii. p. 308.
Merula bouboul, Blyth, Journ. Asiat. Soc. Beng., vol. xvi. p. 47.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 162.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 196.
Turdus pæcilopterus, Vig. in Proc. of Comm. of Sci. and Corr. of Zool. Soc., part i. p. 54.—Gould, Cent. of Birds from Him. Mount., pl. xiv.—Gray and Mitch. Gen. of Birds, vol. i. p. 219.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 81.—Bonap. Consp. Gen. Av., p. 274.
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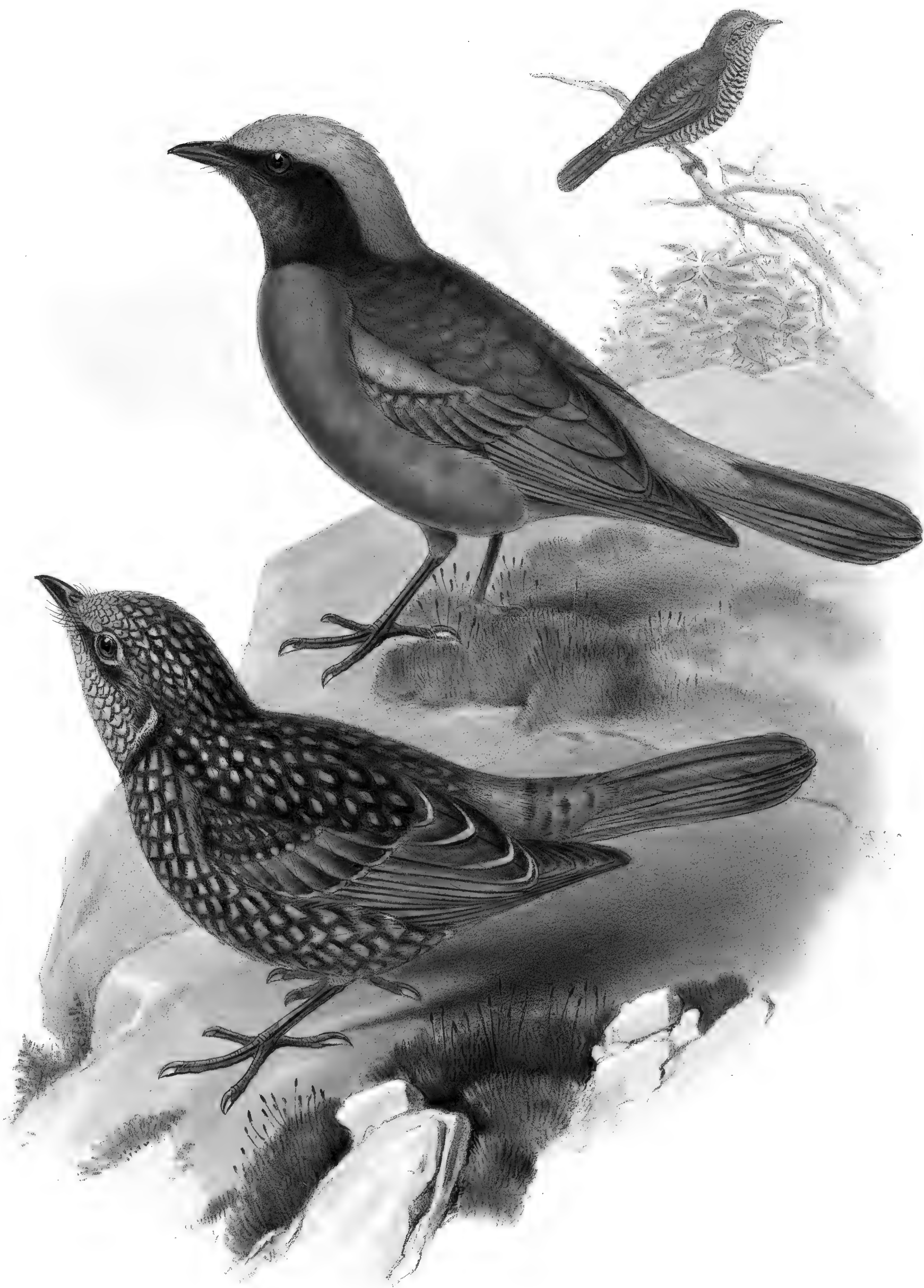
It is much to be regretted that this well-marked species of *Merula* should have received not only the trivial, but also the scientific name of *bouboul*, since, to British ornithologists, another and very different group of birds is better known by this appellation; but it now appears that Latham's specific term of *bouboul* has the priority over the *pæcilopterus* of Vigors, and no alteration is admissible. It is one of the species figured by me in my "Century of Birds from the Himalaya Mountains." A splendid male is now, and has been for a long time, living in the menagerie of the Zoological Society in the Regent's Park. This individual has all the habits of the English Blackbird, bears its confinement equally well, and as spring approaches serenades its caged brethren and the visitors with its cheerful song. After it has completed its moult, the feathers of the breast, which are most perfect, are regularly and elegantly fringed with grey, in which character it much resembles the Ring Ouzel, *Merula torquata*; it differs, however, from that species in its shorter wings, in which respect it is allied to our Common Blackbird, the *Merula vulgaris*, which it may be said to represent in the hill countries of India, that is, the southern slopes of the great Himalayan range, where it frequents similar districts to those tenanted by the *M. albocincta* and *M. castanea*.

Much difference occurs in the colouring of the wings, some individuals having the secondaries and coverts very light, almost approaching to greyish white, while in others those parts are greyish white, strongly tinged with brown. This wing-mark is much less distinct in the female, which sex, moreover, differs from the opposite one in being of an almost uniform brown, offering a strong contrast to the deep black colouring of the male.

The male has the entire plumage black, with the exception of the feathers of the breast and abdomen being finely fringed with grey, and the greater wing-coverts and the outer webs of the secondaries being ashy grey, with purer grey tips; bill and eyelash very rich gamboge-yellow; irides brownish black; legs and feet brownish black, with a tinge of yellow behind and on the soles.

The figures are of the natural size. The plant is the *Rubus biflorus*.





PETROCINCLA ERYTHROGAstra.

J. Gould and H. C. Richter, del et lith

Walter & Cohen, Imp

PETROCINCLA ERYTHROGASTRA.

Chestnut-bellied Rock-Thrush.

- Turdus erythrogaster*, Vig. in Proc. of Comm. of Sci. and Corr. of Zool. Soc., part 1, p. 171.—Gould, Cent. of Birds, pl. 13.—Gray and Mitch. Gen. of Birds, vol. i. p. 219.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 81.
- Petrocincla erythrogastra*, Blyth, Journ. Asiat. Soc. Beng., vol. xi. pp. 189, 461; vol. xii. p. 929; vol. xvi. p. 149.—Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 164.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 185.
- *rufiventris*, Jard. and Selby, Ill. Orn., vol. iii. pl. 129.
- Orocetes erythrogaster*, Bonap. Consp. Gen. Av., tom. i. p. 298.
- *erythrogastra*, Jerd. Birds of India, vol. i. p. 514.
- Petrocosyphus ferrugineoventris*, Less.
- Ningri-pho*, Lepch (Jerdon).
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EVERY particular relating to the history and economy of this species of Rock-Thrush appears to be as much unknown or buried in obscurity as it was when I published my 'Century of Birds from the Himalaya Mountains,' thirty-three years ago; even Mr. Jerdon merely states that "This Thrush has hitherto, I believe, only been found in the Himalayas, generally at a considerable elevation. It is not rare about Darjeeling, frequenting high forest, feeding on the ground on various insects, and, when disturbed, taking refuge in high trees." Mr. Jerdon adds in a note, that he had lately shot it on the Khasia Hills.

The male has the crown of the head, nape, lesser wing-coverts, rump, and upper tail-coverts light blue; back dull dark blue, with a crescent of black near the tip of each feather; greater wing-coverts, primaries, and secondaries dull black, washed with dark blue on the basal portions of their outer webs; the last row of lesser wing-coverts tipped with brownish white, forming a faint line across the wing; tail dull black, glossed with dark blue on the two centre feathers and the outer webs of the remainder; lores, ear-coverts, and sides of the neck black; throat dark blue, each feather tipped with lighter blue; under surface of the body, under tail-coverts, and thighs deep chestnut; irides brownish black; bill and legs black.

The female is ashy brown above, with darker edgings to some of the feathers; lores, ear-coverts, and sides of the neck mottled with fulvous and brown; under surface fulvous, with a crescent of dark brown at the tip of each feather.

The young, like the members of the *Saxicolinæ*, is beautifully spangled all over with spots of buff on a dark ground, the former being the hue of the centres, and the latter that of the margins of the feathers of the upper and under surface and the lesser wing-coverts, while the greater coverts and secondaries are blue, margined with deep buff at the tip, and the upper tail-coverts are rich red, tipped with dark brown.

It will be seen that I have figured a young male in this particular dress, and an adult male, both of the size of life, with a female on a reduced scale in the distance.





SPIZIXOS CANIFRONS, Blyth.

J. Gould and H. C. Richter del et lith.

Walter. Imp.

SPIZIXOS CANIFRONS, *Blyth*.

Crested Spizixos.

Spizixos canifrons, Blyth, Journ. Asiat. Soc. Beng., xiv. p. 571.—Id. Cat. of Birds in Mus. Asiatic Soc. Calcutta, p. 339.

THE large group of Insectorial birds inhabiting India and the neighbouring countries, known under the trivial name of Bulbuls, comprises several genera, among them, *Hemixos*, *Alcurus*, *Ixos*, *Keelartia*, *Rubigula*, *Brachypodius*, *Otocompsa*, *Pycnonotus*, and *Spizixos*. Some of these curious birds are crested, others are adorned with tufts of feathers springing from the sides of the face; some are distinguished by fine colours on the throat or elsewhere, while others are plainly attired. Generally speaking the sexes are alike, and I believe they all live exclusively on insects.

The two species known of the present form, of which the bird here represented is the type, differ from the other members of the family in their bills being shorter, more obtuse, and somewhat assimilating to the form of that organ in the members of the genus *Ampelis*—a modification in structure which is doubtless accompanied by some especial peculiarity in their general economy and mode of life at present unknown to us. But few specimens of the *Spizixos canifrons* have as yet been sent to Europe, and it is here figured for the first time. The following notes of its colouring and the country it inhabits are extracted from the fourteenth volume of the 'Journal of the Asiatic Society of Bengal,' and as they are from the pen of Mr. Blyth we may be certain are correct.

"General colour bright olive-green, becoming yellowish green and more vivid on the rump and margins of the primaries, and inclining also to yellow on the abdomen and more decidedly on the lower tail-coverts; forehead and chin pale ashy; nape, sides, and front of the neck somewhat darker, and passing into blackish on the throat; crown black, the feathers lengthened to a crest nearly an inch high; tail-feathers largely tipped with blackish; bill yellow; legs brown.

"*Habitat*. Cherra Poonjee, or the hill ranges bordering on Sylhet to the northward."

One of the two figures on the accompanying Plate represents the bird of the natural size, the other is somewhat reduced. The plant is the *Thibaudia macrantha*.





SPAZIXOS SEMITORQUES, *Swinh.*

SPIZIXOS SEMITORQUES, *Swinh.*

Chinese Spizixos.

Spizixos semitorques, Swinh. in Ibis, 1861, p. 266 ; and Proc. of Zool. Soc. 1863, pp. 278, 334.

SCIENCE is indebted to Mr. Swinhoe for the discovery of this second species of *Spizixos*, the Chinese or eastern representative of the more western *S. canifrons* of Sylhet, from which it differs in having the crest but slightly developed, and in some parts of its colouring. These differences are noted in the following extract from the 'Ibis' for 1861, which comprises all that Mr. Swinhoe has recorded respecting this new bird.

"A common species on the Pehling plateau, where it frequents the bushes, and appears to be substituted for the *Pycnonotus occipitalis* of the plains below. Mr. Blyth considers it a typical *Spizixos*, and says it differs from his *S. canifrons* by its black forehead, want of crest, the greater extent of black on the throat, &c.; but that, except in the head and neck, there is hardly any difference." In the 'Proceedings of the Zoological Society' for 1863 he says it is "a resident species in the high plateau near Foochow. I have also procured it from the mountain-ranges of Formosa. Sexes alike."

As is the case with the *S. canifrons*, examples of the *S. semitorques* are rarely to be met with in the collections of Europe ; fine specimens may, however, be seen in that at the British Museum and in Mr. Swinhoe's possession.

To say that this bird has not been figured before would be incorrect, for, although it has not appeared in any ornithological work, I have seen it very fairly represented in Chinese drawings ; we may therefore infer that it is a familiar object with the native artists of the Celestial Empire. Of its habits, food, and general economy nothing has been recorded ; which is the more to be regretted, inasmuch as the singular form of the bill would seem to indicate that they are characterized by some peculiarities.

Head black, passing into blackish grey on the occiput and hinder part of the neck ; a white patch on each side of the forehead and at the base of the lower mandible ; cheeks streaked with white, which accumulating form a patch on each side of the nape, and advancing to the front of the neck, where they become mingled with dark grey, form a half-collar ; upper surface, breast, and flanks olive-green ; inner webs and shafts of the primaries rich brown ; the remainder of the wing yellowish olive-green, with an edging of bright greenish yellow ; tail olive-green, with a black band at the tip, and the shafts and edges of the inner webs brown ; under surface bright greenish yellow ; irides brown ; bill pale yellow ; legs and claws pale liver-brown.

The figures are of the natural size, or, if at all different, perhaps a trifle smaller.

The plant is the *Thladiantha dubia*.





IXUS SICHENSIS.

J. Gould, & H. C. Richter del et lith.

Walter, Imp.

IXUS SINENSIS.

Chinese Bulbul.

Le Gobe-mouche verdâtre de la Chine, Sonn. Voy. Ind. Orient., ii. p. 197.

Wreathed Flycatcher, Lath. Gen. Syn., ii. pt. 1, p. 336.

Muscicapa sinensis, Gm. S. N., i. p. 942.

Turdus occipitalis, Less. Traité d'Orn., p. 410.—Eydoux et Souleyet, Mag. de Zool. (1836), Oiseaux, pl. 66.

Pycnonotus sinensis, Blyth, J. A. S. B., xiv. p. 569.—Id. Cat. B. Mus. A. S. B., p. 210.—Horsf. & Moore, Cat. B. Mus. E. I. Co., i. p. 246.

——— *occipitalis*, Gray, Gen. B., i. p. 237.—Swinh. Ibis, 1861, p. 39.

Ixus sinensis, Bonap. Consp. Gen. Av., i. p. 266.—Swinh. P. Z. S., 1871, p. 369.

If I had wished to select one of the commonest Chinese birds I probably could not have chosen a fitter subject for my Plate than the present species; but, notwithstanding that it is one which has been more than once figured, I cannot resist the opportunity of giving an illustration of the nest and young birds, with which Mr. Swinhoe has kindly furnished me; for although the species has been known for a long time (ever since the time of Sonnerat) we have only lately become thoroughly acquainted with its manners and economy.

In his last list of Chinese birds Mr. Swinhoe gives the habitat as follows:—"Luichow to Shanghai, and westward to Szechuen, also in Formosa. Shanghai samples are larger, with the black of the crown somewhat obscuring the white of the occiput; Szechuen specimens have the occiput very white, with a pale halter mark round the neck; but both these varieties occasionally occur at Amoy."

The best account of the species is that given by the Consul in 'The Ibis' for 1863, p. 289:—

"This is the commonest of the *Pycnonotidæ* in Southern China; it is said to be also very common in the Philippines, and in Formosa is our only species, being found in great abundance throughout all the low country. My specimens vary chiefly in the proportions of white and black on the head. I have one peculiar variety from Amoy. The Formosan form is essentially identical with the Chinese bird, having no special peculiarities of its own. It is, however, a bird abundant on the coasts of both the island and the main, and possesses no mean powers of flight; and, though usually resident in localities where found, there could be no difficulty in supposing it occasionally to transport itself across the channel.

"These birds subsist partly on insects, and partly on berries and small wild figs. In habits they connect the *Fringillæ* and the *Muscicapæ*, assembling, like the former, in large flocks, and flying from tree to tree in noisy concert in search of berries, and, like the latter, pursuing insects in the air. They have no habits in common with the skulking *Garrulæ*, preferring rather to show themselves tame and conspicuous; no creeping from bush to bush, and chattering in low and coaxing whisper, in their case; but, perching on the tops or exposed parts of bushes and trees, they assemble and utter loud notes,—often, when so engaged, ruffling their crests, rounding the back and tail, and making the tips of their wings meet over their heads. Their notes are very varied, but strikingly peculiar, and I would try to syllable them if there was any chance of conveying to the reader an idea of their natural sounds. In April they commence nesting, but still keeping together in parties, which meet after the business of the day is over and amuse themselves till nightfall. They mostly build three nests in the course of the season, occasionally four, laying in the first nest usually five eggs, in the others that succeed three. In the interior the nest is large and deep for the size of the bird; it is usually made of grasses, lined with finer samples; but in the materials these birds are by no means particular, almost any thing they can gather, such as scraps of paper, cotton, cloth, leaves, and feathers, being added. In the site, too, they are not regular; any bush or tree, of almost any height from the ground, will serve their purpose; and in the usual choice of their position they show as little discernment as the Hedge-Sparrow (*Accentor modularis*) at home, frequently placing their nests in most exposed situations. They generally nestle in gardens close to the habitations of Chinese, and, being familiar birds, are protected. When their nest is approached they make a great chattering; but they have far less to fear from man than from Magpies and *Garrulæ*.

"Their eggs are of a purplish-white ground-colour, spotted closely and often confusedly with dark shades of brownish purple-grey. They measure .9 by .65 inch."

An amusing story is also related by the same gentleman (Ibis, 1870, p. 254) concerning the present species or its Hainan relative:—"The Chinese writers of some centuries back call the Hainan *Ixus* by the

same name as the Chinese race; and one author gives a joke, which annoyed a celebrated old gentleman with a bald head. The latter was sitting with some friends in an arbour, when a Bulbul flew over. One of the friends asked what bird it was, and another replied, 'The White-poll'd Grandsire,' as *I. sinensis* is named by the Chinese literati. The friends laughed, but the old gentleman did not like it.

"The whole story is thus given in the 'Kiung-shan-Heen Gazetteer':—'*Choo Kokih* was in the reception-hall of Lord *Woo*, when this bird flew past. Lord *Woo* asked what bird it was. *Choo* replied, "The White-poll'd Grandsire." *Chang Chao*, an old gentleman also present, suspecting that *Choo* was joking at his expense, said, "I have never heard of a bird called White-poll'd Grandsire. Perhaps you know another called White-poll'd Grandmother?" *Choo* at once rejoined, "No! but you must know the Parrot's Mamma (Cockatoo). Would you like to have also a Parrot's Papa?" Poor *Chang* was perplexed, and the rest of the company amused."

I copy the annexed description from the published papers of Mr. Swinhoe:—

"*Adult*.—Bill and legs black. Iris rich brown. Crown, moustache, and nuchal band black. Auriculars brown, ending in a large white spot. Upper parts brownish grey, each feather being margined laterally with yellowish olive-green. Quills and tail hair-brown, margined on outer webs with greenish yellow. Throat white; a broad pectoral band of light greyish brown. Underparts pure white in most specimens, with only a few yellow streaks; in others dingy yellowish white, most of the feathers margined exteriorly with sulphur-yellow. Under wing whitish, the fourth and fifth quills equal and longest. Tail-feathers twelve, somewhat graduated, with white under-shafts.

"The young of this species have the head a uniform colour with the back, which is light brown instead of grey; the rest of the colours are much paler. Among my series from Amoy I have one very curious variety, in which the white of the occiput and throat is of a fine clear smoke-grey. My specimens differ from one another chiefly in the development of the white occipital patch; some have it very large, and occupying a good portion of the head, while in others it gets encroached upon by the black, until in some specimens it almost entirely disappears. There is also a great variation in size and length of wing and tail; but in the form and length of bill the difference is not so appreciable as I have found it in many species of birds."

The Plate represents the birds with their nest and young, all of the natural size.

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HYPsipETES NIGERRIMA, Gould.

HYPSIPETES NIGERRIMA, *Gould.*

Formosan Hypsipetes.

Hypsipetes nigerrima, Gould in Proc. of Zool. Soc. 1862, p. 282.

——— *nigerrimus*, Swinh. in Ibis, 1863, p. 287.

THE only additional remark I have to make in connexion with this interesting species, beyond those given below from the pen of Mr. Swinhoe (who enjoyed opportunities for observing the bird in a state of nature), is that all the members of the genus *Hypsipetes*, of which the *H. psaroides* may be regarded as the type, are denizens of Asia, and that the sexes of all of them do not exhibit any marked difference in their colouring, neither do they vary materially in size.

“The nearest allies of this species,” says Mr. Swinhoe, “are the *H. psaroides*, Vigors, from Nepaul, and the *H. ganeesa*, Sykes, from Assam, both of which are of blackish-grey plumage, and both have, like it, red bills and legs. I know no similar species from China. The only bird of this genus I have seen from the hills of southern China is a green species (my *H. Holtii*), very closely allied to *H. Maclellandi*, Horsf., from Bootan and Nepaul. The Formosan bird is at once distinguishable from its Nepaulese cousins by its much blacker colouring; hence the appropriate name suggested by Mr. Gould. This species is found in all the wooded parts of the interior mountain-range, feeding largely on berries and the small figs of the numerous species of *Fici* that abound, including those of the Chinese Banyan (*F. nitida*). Insects, chiefly small Coleoptera, also form part of its subsistence. In winter it rambles about the high country in small parties, and may be found at all altitudes clothed with forests. In the spring these parties disperse for the purpose of nidification, and at this season a few pairs may be found in the better-wooded portions of the low country.

“On my trip into the interior, in the latter half of April, I observed one of these birds in an orchard composed of venerable moss- and fern-covered trees. It perched on the highest twigs, and gave utterance to its song, which consisted of notes resembling ‘*swee-swee-swee*,’ repeated loudly and in quick succession. There was not much melody in them. When it observed me, it flew to a further tree, whence finally I shot it.

“The *Hypsipetes* are longer-winged and smarter in flight than the *Pycnonotidæ*, but, as regards general habits, are closer in their affinities to them than to any other group.

“General plumage black, shot with dark green, especially on the upper surface; wings and tail edged with bluish or charcoal smoke-grey; eyelid black; irides deep chestnut; bill and legs brilliant coral-red; solepads and bases of claws dingy ochreous; claws black; inside of the mouth and tongue orange-red.

“In many of the specimens the feathers of the belly, axillaries, rump, and vent are margined with bluish grey.

“The sexes are alike; but the female has somewhat shorter wings.

“In the young birds the plumage is much browner, and the feathers of the under parts margined and tipped with greyish white. All my specimens were obtained in the spring of 1862; but many of them still retain markings of the immature plumage, thereby showing that the autumnal moult is not a complete transformation of the young into the mature plumage. In the adult, the wings are brownish black, the quills, especially the secondaries, being broadly margined with bluish grey; the wing-coverts are also black, but less distinctly margined. The tail is brownish black, all the feathers, except the outermost, being margined exteriorly, for the greater part of their length, with bluish grey. The feathers of the crown are long and lanceolate.”

The figures are of the size of life.





PHYLLORNIS JAVENSIS.

PHYLLORNIS JAVENSIS.

Javanese Phyllornis.

Meliphaga Javensis, Horsf. Trans. Linn. Soc., vol. xiii. p. 152, male.

Turdus Cochinchinensis, var., Raffl. Trans. Linn. Soc., vol. xiii. p. 309.

Chloropsis Sonneratii, Jard. and Selby, Ill. Orn., pl. 100, Syn. Spec. *Chloropsis*, vol. i. sp. 3, and Syn. Spec. *Chloropsis*, vol. ii. sp. 4. text to pl. 100.—Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 598, and vol. xiv. p. 564.—Jerd. in Madr. Journ of Lit. and Sci., vol. xiii. pt. ii. p. 125.

Phyllornis Sonneratii, Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 213.—Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 3.—Bonap. Consp. Gen. Av., tom. i. p. 396, *Phyllornis*, sp. 6.

———— *mullerii*, Temm. Mon. of Gen. *Phyllornis* in Pl. Col., sp. 1.

Turdus viridis, Horsf. Trans. Linn. Soc., vol. xiii. p. 148, young female.

Emerald Thrush, Lath. Gen. Hist., vol. v. p. 90, female.

Chloropsis gampsohynchus, Jard. and Selby, Ill. Orn., vol. i. pl. 7, Syn. Spec. *Chloropsis*, vol. i. sp. 4, and vol. ii. text to pl. 100, Syn. Spec. *Chloropsis*, sp. 5.

———— *zosterops*, Vig. App. to Mem. of Sir T. S. Raffles, p. 674.

Phyllornis Javensis, Horsf. and Moore, Cat. of Birds in Mus. of East Ind. Comp., vol. i. p. 260. Moore in Proc. of Zool. Soc., part xxii. p. 280.

Chuchack-iju of the Javanese, Horsfield, male.

Ijoan of the Javanese, Horsfield, female.

Dawn or *Dawoun* of the Malays, Eyton.

ONE would naturally expect to find something recorded respecting the habits of a bird which, like the present, has had at least four generic and several more specific appellations assigned to it; but such, I regret to say, is not the case. It is in every respect a typical *Phyllornis*, and moreover the largest known species of the genus: it is also more widely dispersed, perhaps, than any of the others; for it not only inhabits the eastern parts of the Indian continent and the Malayan peninsula, but the islands of Sumatra and Java claim it as belonging to their respective faunas. It will be seen from the accompanying drawing that much difference exists in the plumage of the two sexes, and that the young birds differ from both; at least such is my belief, founded upon an examination of specimens collected in Malacca by Mr. Wallace, one of which, with a yellow throat, represented by the middle figure in my Plate, is labelled by him as a young male.

The above lengthy list of synonyms has been published by various writers on Indian birds, and their validity remains unquestioned: of these, Mr. Moore has satisfied himself that the oldest is that of *Javensis*; and as he was for so many years at the elbow of the late Dr. Horsfield, who proposed the appellation, he is doubtless correct.

The male has the lores, face, chin, and throat deep velvety black, with a narrow moustache-like line of blue within the black immediately below the angle of the lower mandible; all the upper surface and wing-coverts grass-green; under surface paler and yellower grass-green; on the edge of the body next the shoulder, a mark of light verditer green; primaries and secondaries dark grass-green on their outer webs, brownish black on the inner; two centre tail-feathers dark grass-green, the remainder the same, but passing into blackish brown on the margins of their inner webs; bill black; irides brown; legs and feet olive.

The young male differs in having the throat yellow.

The female is very similar to her mate in general colouring, but, in lieu of the black throat, has a patch of yellowish green like the under surface on the chin, the blue moustache of a lighter hue, and a ring of pale yellow round the eyes.

The Plate represents an adult male, a young male, and a female of the natural size, on the *Cissus discolor*.





PHYLLORNIS HARDWICKI.

PHYLLORNIS HARDWICKI.

Hardwick's Phyllornis.

- Chloropsis Hardwickii*, Jard. and Selby, Ill. Orn., vol. ii., Addenda, p. 1, note.—Jerd. in Madr. Journ. of Lit. and Sci., vol. xiii. pt. ii. p. 125.
- Phyllornis Hardwickii*, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 106, vol. xii. p. 955, vol. xiii. p. 392, vol. xiv. p. 566, vol. xv. p. 40.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 212.—Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 8.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 60.—Bonap. Consp. Gen. Av., vol. i. p. 396, *Phyllornis*, sp. 1.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 258.
- Chloropsis curvirostris*, Swains., Lard. Cab. Cycl. Anim. in Menag., part iii. p. 345.
- *auriventris*, Deless. Rev. Zool. 1840, p. 100.—Ib. Mag. de Zool. 1840, Ois. pl. 17.—Ib. Voy. dans l'Inde, tom. ii. p. 23. pl. 7.
- *chrysogaster*, M'Clell. in Proc. of Zool. Soc., part vii. p. 167.
- *cyanopterus*, Hodgs. in Gray's Zool. Misc., 1844, p. 82.
- Boing-dan-thay* of the Aracanese, Blyth.
-

FEW persons have been more ardently devoted to the investigation of natural history than the late Major-General Thomas Hardwicke: not only did this veteran Indian officer amass vast stores of the animal products of India, which he subsequently bequeathed to the British Museum, but there also will be found a large number of drawings, both of quadrupeds and birds, presented by the same liberal hand to the great national repository. It was in honour of this brother labourer in the field of science that Messrs. Jardine and Selby named the bird here represented *Hardwickii*. From Swainson it received the name of *curvirostris*—a most inappropriate appellation, since its bill is not more curved than that of the other members of the genus; the term *cyanopterus* was assigned to it by Mr. Hodgson; while *auriventris* and *chrysogaster* appear among the synonyms as having been given by Mr. M'Clelland and M. Delessert. Both *cyanopterus* and *auriventris* would have been appropriate specific appellations, had not that of *Hardwicki*, by which it will always be known, been previously applied to it.

The *Phyllornis Hardwicki* will rank as one of the finest members of the genus, as it is interesting not only for its gay and fine colouring, but from the circumstance of its tints being so widely different from those of any of its congeners as to render it at once distinguishable from all of them. It is confined, so far as I can ascertain, to the countries of Nepaul, Bhotan, Assam, Sylhet, and Aracan.

As will be seen on reference to the opposite Plate, the sexes present a marked difference in their colouring; it will be noticed also that the black gorget of the male extends further down than in any other species. Other peculiarities in the colouring of this sex will also be apparent, such as the blue colouring of the wing, the orange on the breast, &c.

The male has the lores, sides of the face, chin, throat, front of the neck, and a large gorget-shaped mark on the breast deep velvety black; a broad moustache of azure-blue descending from the angle of the mouth within the black; all the upper surface, scapularies, and secondaries yellowish grass-green, the yellow tint prevailing on the head and back of the neck; shoulder glossy verditer blue; greater wing-coverts and margins of the primaries deep blue; inner webs of the primaries blackish brown; tail deep blue; under surface dull orange; bill black; irides brown; feet olive-grey.

The general plumage of the female is grass-green, with a light-blue moustache at the angle of the lower mandible; and the centre of the abdomen, vent, and under tail-coverts orange.

The Plate represents the two sexes of the natural size, on the *Epigynium acuminatum*.





PHYLLORNIS HODGSONI.

Hallward & Walton, Imp.

PHYLLORNIS HODGSONI.

Hodgson's Phyllornis.

Hurruwa Bee-eater, Lath. Gen. Hist., vol. iv. p. 125. pl. 68.

——— *Malabaricus*, Jard. and Selby, Ill. Orn., vol. i. Syn. Spec. *Chloropsis*, sp. 2, and pl. 5.

——— *aurifrons*, Jard. and Selby, Ill. Orn., vol. ii. Syn. Spec. *Chloropsis*, in text to pl. 100, sp. 3.—Jerd. Madras Journ. Lit. and Sci., vol. xiii. part ii. p. 123.

Phyllornis aurifrons, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 458, vol. xii. p. 956, vol. xiv. p. 566.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 212.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 61.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 258.

Merops Hurryba, Dr. F. B. Hamilton, MS. i. p. 66.

Hurryba (various voices), Hamilton.

Sulz Hariwa of the Nepalese, Hodgson.

Nget-tsin of the Aracanese, Blyth.

MR. G. R. GRAY is inclined to believe that the present bird, which is a native of Upper India, is quite distinct from that figured by Temminck in his 'Planches Coloriées' under the name of *Phyllornis aurifrons*, and which he states is a native of Pallambang, in the island of Sumatra. Now, although I have not had an opportunity of examining the original of M. Temminck's figure and description, I am inclined to coincide with Mr. Gray's opinion, and have therefore adopted the specific name of *Hodgsoni* suggested by him.

Should our joint opinion prove to be correct, then three of the finest members of the genus *Phyllornis*, inhabiting the continent of India, will be respectively named after three persons who have paid particular attention to the investigation of the ornithology of that interesting region, namely, Hardwicke, Hodgson, and Jerdon. I have already spoken of two of these gentlemen when writing on the species bearing their names, and now for a word respecting Mr. Hodgson, to whom the present beautiful species is dedicated. For him no eulogy from me is necessary, since his fame is amply secured by his numerous valuable papers on the natural history of India, and by the vast collections, both of specimens and drawings, he has so liberally presented to that great national repository, the British Museum. These invaluable stores form abundant materials for the illustration of the fauna of one of our greatest and richest possessions. The term *Hodgsoni*, then, is in this instance especially appropriate, and I trust that the bird here represented will always be recognized by it by every ornithologist. The bird itself has long been familiarly known to us as the *Hurruwa Bee eater* of Latham whose figure of the male, in the fourth volume of his 'General History of Birds,' must always leave a lasting impression upon the mind of every young ornithologist.

The native habitat of the *Phyllornis Hodgsoni* is Northern India, the Himalayas, Sylhet, and Aracan. Latham says "it is the Hurrial or Hurryba of the Hindostanese, pronounced *Hurruwa*; it is said to sing very prettily, from whence the name *Hurry*, various, and *Ba*, voice."

Mr. Blyth tells us that "it is no despicable songster, and lives and sings well in confinement."

I cannot close my remarks on this species without offering my thanks to Edward Vernon Harcourt, Esq., for the specimens from which my figures were taken. This gentleman has devoted much time and attention to natural history, and I have much pleasure in recording my obligations to him, not only for examples of this, but for other species of birds inhabiting the great Himalaya range of mountains.

The usual difference occurs in the colouring of the sexes, the female, as will be seen on reference to the opposite Plate, being destitute of the black throat.

Forehead rich reddish orange, lores and throat-gorget deep velvety black, bordered externally with yellow; chin deep blue; plumage of the body, wings, and tail grass-green, lighter beneath; inner webs of the primaries and secondaries blackish brown, on each shoulder a patch of verditer blue; bill black; irides yellowish hazel; legs olive-grey.

The figures are of the natural size. The plant is the *Hexacentris Mysorensis*.





PHYLLORNIS MELANOBARICUS.

PHYLLORNIS MALABARICUS.

Malabar Phyllornis.

- Turdus Malabaricus*, Gmel. edit. of Linn. Syst. Nat., vol. i. p. 837.—Lath. Ind. Orn., vol. i. p. 349.
Yellow-fronted Thrush, Lath. Gen. Syn., vol. iii. p. 60.—Ib. Gen. Hist., vol. v. p. 64.—Shaw, Gen. Zool., vol. x. p. 252.
Le Petit Merle de la Côte de Malabar, Sonn. Voy. Ind., tom. ii. p. 192.
Chloropsis Malabaricus, Jard. and Selby, Syn. Spec. *Chloropsis* in Ill. Orn., vol. ii. text to pl. 100. sp. 1.—Jerd. Ill. Ind. Orn., text to pl. 43.
Phyllornis malabarica, Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 2.
——— *frontalis*, Natt. Syn. MS. Pelz. Sitz. der Math. Classe der Kais. Akad. der Wissensch., Zwanz. Band, 1856, p. 157. taf. 2. fig. 1.
-

THERE is no doubt in my mind about the present bird being identical with that described by Latham under the name of the Yellow-fronted Thrush (vide his 'General History of Birds,' vol. v. p. 64); it is equally clear to me that it is the "Petit Merle de la Côte de Malabar" of Sonnerat's 'Voyage aux Indes Orientales et à la Chine,' tome ii. p. 192; my old friend Natterer's name of *frontalis* therefore cannot for a moment be entertained. I mention this fact, because the bird has been lately figured under that appellation in the foreign journal referred to above.

In size the *Phyllornis Malabaricus* fully equals, if it does not exceed, the *P. Jerdoni*; but it differs from that species in the orange colouring of the fore-part of the head. The entire blue throat of the *Hodgsoni*, another species inhabiting the northern parts of India, is a character which, if attended to, will enable the ornithologist to distinguish it from that species.

As its name implies, this species is found in the country of Malabar and the western coast of the peninsula generally. The Vienna journal above quoted states that Baron Hugel found it at Khelgat near Goa.

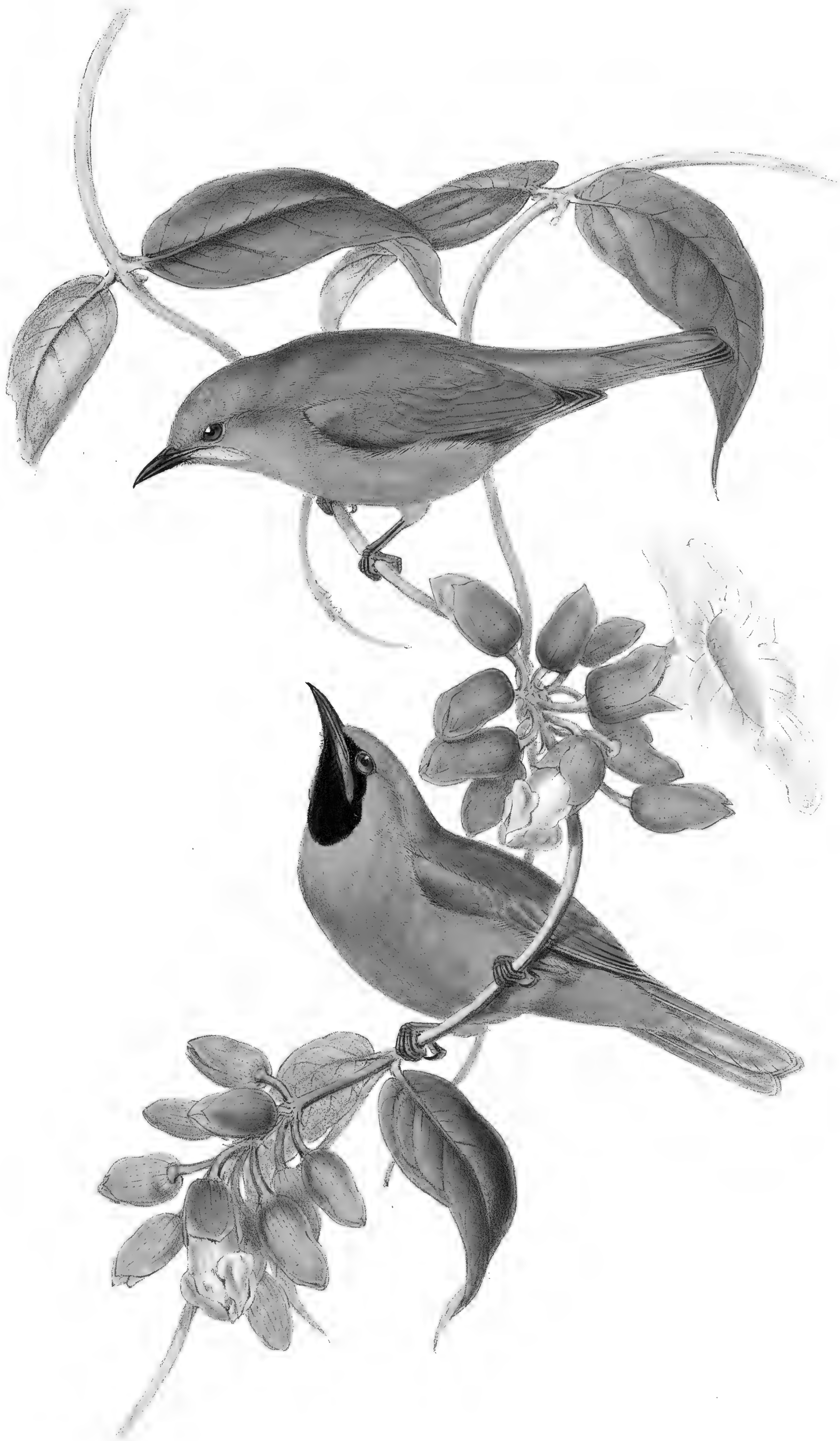
"This species," says Mr. Jerdon, "is much more rare than the *P. Jerdoni*, preferring the vicinity of lofty jungles, and is only to be found about the western coast, and some of the denser portions of the jungles of the Eastern Ghauts."

The male has the forehead fine rich orange; lores, chin, and throat deep velvety black, within which the usual blue moustache-like mark descends from the base of the lower mandible; all the upper and under surface, wings, and tail grass-green, washed with yellow, where this colour meets the black throat-mark; shoulders fine shining verditer blue; inner webs of the primaries and secondaries brownish black; bill black, inclining to flesh-colour at the base; irides yellowish hazel; feet olive-grey.

The female differs in having the throat bluish green, and the forehead and sides of the neck washed with yellow.

The Plate represents both sexes of the natural size, on the *Astilbe rubra*.





PHYLLORNIS JERDONI.

J. Gould and H. C. Richter del. et lith.

Holloman del. & Walton imp.

PHYLLORNIS JERDONI.

Jerdon's Phyllornis.

- Phyllornis Jerdoni*, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 392, vol. xiv. p. 566.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 212.—Bonap. Consp. Gen. Av., vol. i. p. 396, *Phyllornis*, sp. 4.—Jerd. Ill. Ind. Orn., Index.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 259.—Layard in Ann. and Mag. Nat. Hist., 2nd ser. vol. xii. p. 176.
- Chloropsis Jerdoni*, Jerd. Ill. Ind. Orn., pl. 43.—Ib. Madras Journ. of Lit. and Sci., vol. xiii. pt. ii. p. 124.
- *Casmarhynchus*, Gray, in Griff. An. Kingd., vol. vi. p. 391.
- *casmarhynchus*, Tickell, Journ. Asiat. Soc. Beng., vol. xi. p. 577.—Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 956.
- Phyllornis casmarhynchus*, Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 5.
- *cochinsinensis*, Jerd. Madr. Journ. of Lit. and Sci., vol. x. p. 247.—Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 957.
- Blue-chinned Thrush*, var. A, Lath. Gen. Hist., vol. v. p. 93 (young).
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I HAVE much pleasure in adopting Mr. Blyth's name of *Jerdoni* for this species of *Phyllornis*, as by so doing I shall assist in perpetuating the name of a gentleman who has contributed so largely to our knowledge of the birds of the Indian peninsula, and whose scientific papers on the ornithology of that part of our Eastern possessions so justly entitle him to the distinction of having one of its fine birds named after him.

"This species," says Mr. Jerdon, "is spread over a great part of the continent of India, wherever there is a sufficiency of woodland; it is extremely common in all the western provinces, and in the jungles of the Eastern Ghauts, but it is rarely met with in the open country of the Carnatic, Mysore, or Hyderabad, and there only in the vicinity of well-wooded towns. It is usually met with in pairs, flitting about the extreme branches of trees, examining the leaves for various insects, after which it occasionally takes a short flight of a foot or two, searching for some suitable fruit. It has a somewhat varied note, its usual call being, as Mr. Blyth remarks, not unlike that of the King Crow (*Dicrurus macrocercus*), though softened down and mellowed, and occasionally is very agreeable. I have seen a nest of this species in the possession of S. N. Ward, Esq.; it is a neat but slight cup-shaped nest, composed chiefly of fine grass, and was placed near the extremity of a branch, some of the nearest leaves being, it was said, brought down and loosely surrounding it. It contained two eggs, white, with a few claret-coloured blotches; its nest and eggs, I may remark, show an analogy to those of the *Orioles*."

Captain Tickell informs us that "this bird is a beautiful songster and an excellent mocker, and imitates the notes of almost every small bird of the country."

In the volume of the 'Annals and Magazine of Natural History' above referred to, Mr. Layard says the bird is "extremely common in the south of Ceylon, but rare towards the north; it feeds in small flocks on seeds and insects, and builds an open cup-shaped nest. The eggs, four in number, are white, thickly mottled at the obtuse end with purplish spots."

The male has the face, chin and throat deep velvety black, with a shining small blue moustache within the black below the angle of the lower mandible; general plumage green, lighter beneath, and passing into a yellow hue on the forehead and round the black gorget; shoulders verditer blue; primaries and secondaries brownish black on their inner, and green on their outer webs; tail grass-green; irides brown; bill brownish black; legs greenish grey.

The female differs in having the throat pale verditer green and the moustache bluish green.

The Plate represents the two sexes of the size of life, on the *Thunbergia Harrisii*.





PHYLLORNIS CYANOPOGON, Temm

PHYLLORNIS CYANOPOGON, *Temm.*

All Green Phyllornis.

- Phyllornis cyanopogon*, Temm. Pl. Col. 512. fig. 1.—Less. Traité d'Orn., p. 301.—Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 213.—Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 6.—Moore in Proc. of Zool. Soc., part xxii. p. 280.
- *Malabaricus*, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 957.
- Burong Daun* of the Malays in Sumatra, Raffles.
- Phyllornis mystacalis*, Moore in Proc. of Zool. Soc., part xxii. p. 280.
- *cyanopogon*, Blyth, Journ. Asiat. Soc. Beng., vol. xiv. p. 564.
- Chloropsis mysticalis*, Swains. in Lard. Cycl., Anim. in Menag., part iii. p. 96.—Gray and Mitch. Gen. of Birds, vol. i. p. 124, *Phyllornis*, sp. 7.
- *cyanopogon*, Jard. and Selby, syn. spec. *Chloropsis* in Ill. Orn., vol. ii. text to pl. 100. sp. 6.
-

No confusion need ever exist as to the identity of the bird here represented, since it differs from all its congeners in the absence of any blue or greenish blue on the shoulder, and in the almost uniform green colouring of its entire plumage, which is only relieved in the male by the black colouring of the throat and the usual stripe of blue springing from the base of the lower mandible.

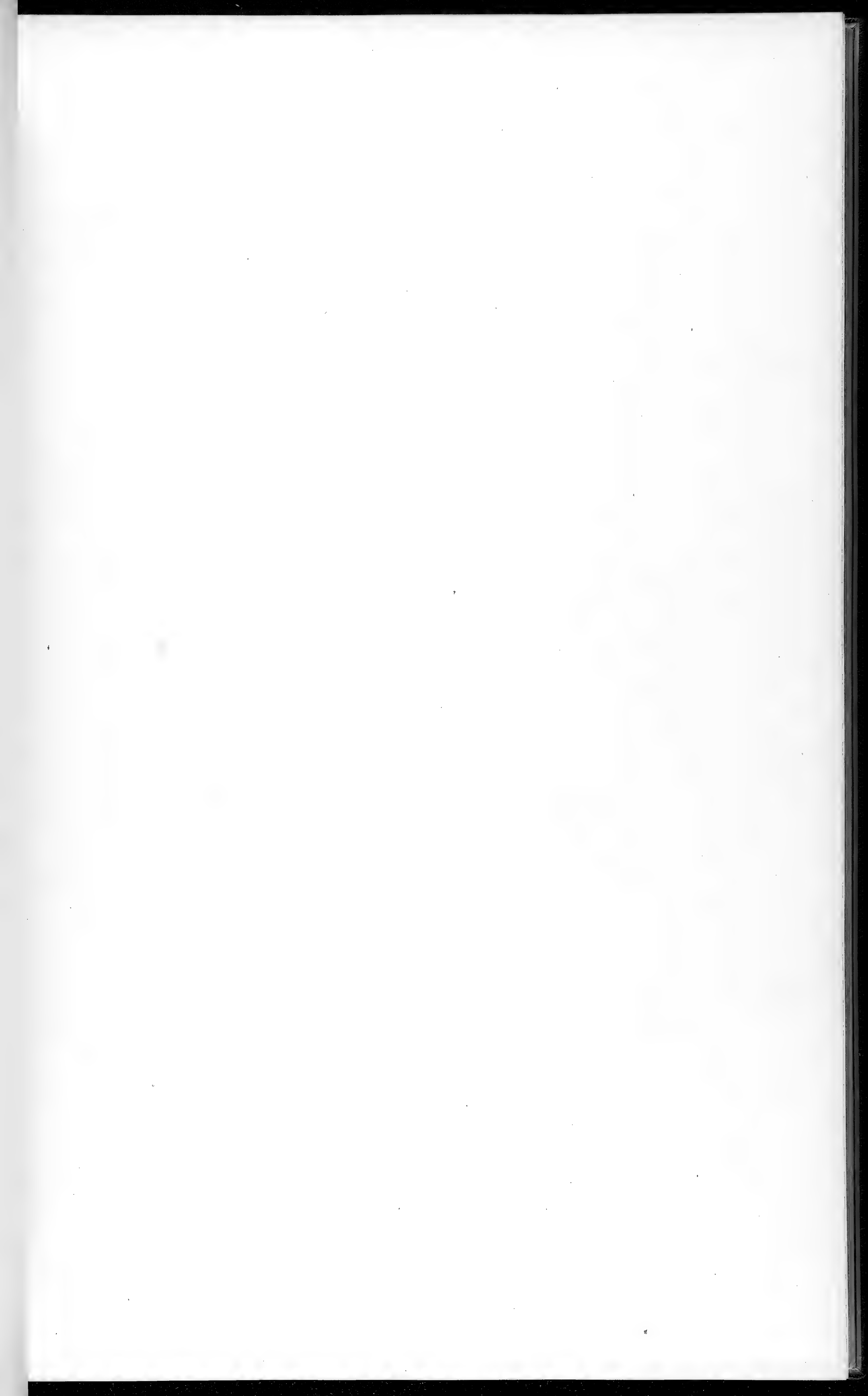
The *Phyllornis cyanopogon*, which must rank as one of the smaller members of the genus, is undoubtedly the bird described under the name of *Phyllornis mysticalis* by the late Mr. Swainson, who appears not to have been aware of the localities in which it is found, but which we now know to be Malacca, and the Malay countries generally. Most of the specimens received in Europe are sent from Singapore. Temminck states that it is also found in Sumatra, but not in abundance.

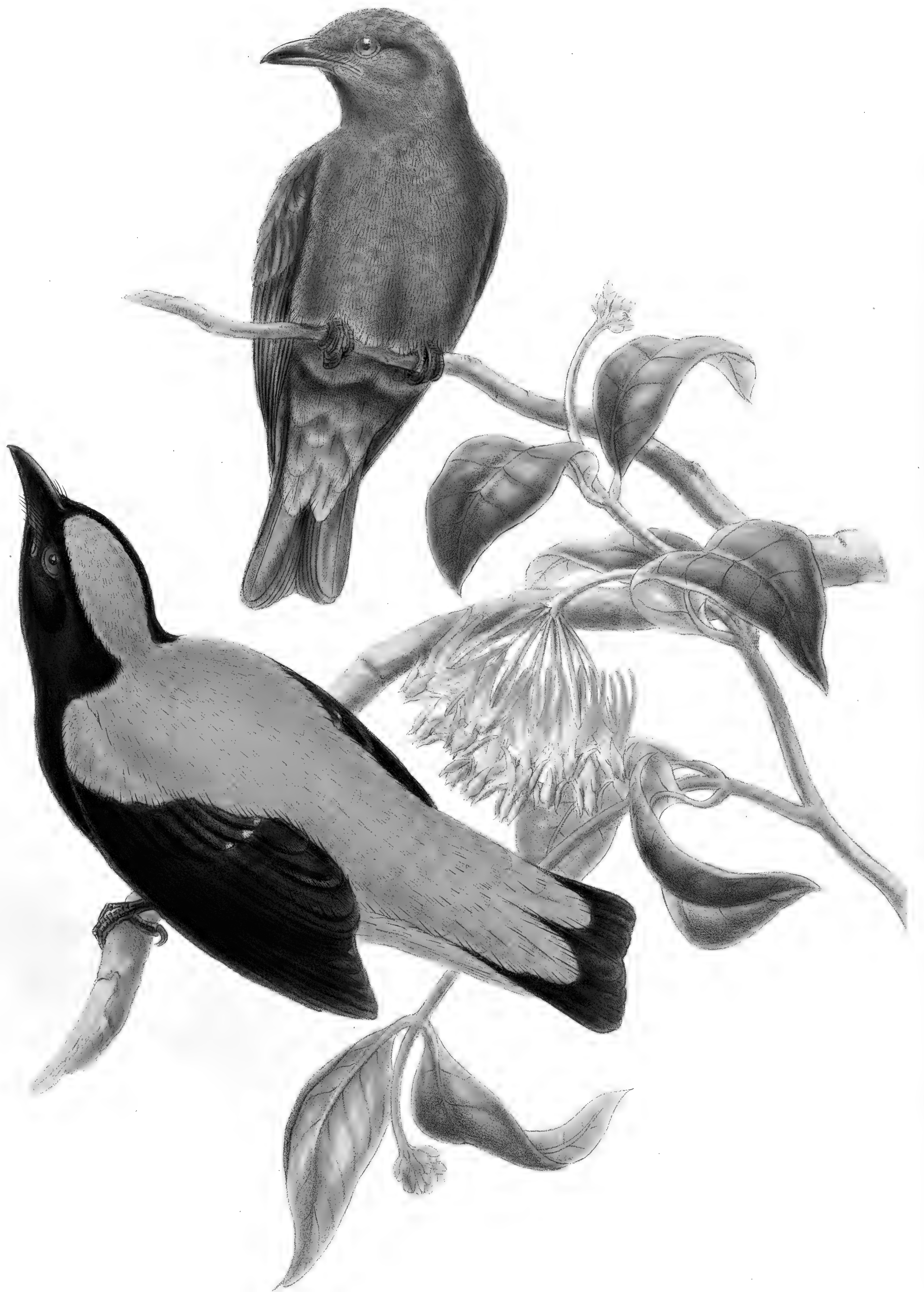
The sexes of this species, like those of all the other members of the genus, may be at once distinguished by the absence of any black colouring on the throat of the female.

The male has the general plumage grass-green above and paler beneath; lores, chin, and throat deep velvety black, within which a narrow stripe of blue descends from the angle of the lower mandible; inner webs of the primaries and secondaries brownish black; tail green above, beneath slaty brown; bill black; irides brown; feet olive-grey.

The female differs in having the throat green instead of black, with, in some specimens, a slight blue moustache.

The Plate represents the two sexes of the natural size, on the *Ceropegia Cumingiana*.





IRENA CYANEA.

IRENA CYANEA.

Malayan Fairy Bluebird.

Muscicapa cyanea, Begbie, Malayan Peninsula, p. 517 (1834).

Irena puella, Blyth, Journ. Asiat. Soc. Beng. xv. p. 308 (nec Lath.).—Id. Cat. Birds Mus. As. Soc. Beng. p. 214 (partim).—Bonap. Consp. i. p. 274.—Walden, Ann. & Mag. Nat. Hist. 4, vol. v. p. 417.—Id. Ibis, 1871, p. 170.

Irena malayensis, Moore in Horsf. & Moore, Cat. B. Mus. E.I. Co. i. p. 274.—Jerdon, Birds of India, ii. p. 106.—Gray, Hand-list of Birds, i. p. 288.

Irena cyanea, Walden, Ibis, 1871, p. 170.—Sharpe, Cat. Birds, iii. p. 269.—Hume, Stray Feathers, 1879, p. 63.

THE specific distinctness of the members of the genus *Irena* has been for many years a subject of discussion amongst naturalists; and it is now more than thirty years ago since the late Mr. Blyth drew attention to the subject. In a note upon the genus *Irena* he remarks:—"A curious distinction between the Indian and Malayan *I. puella* has been pointed out by Lord Arthur Hay, to whom we are indebted for numerous other closely allied forms. In the Malayan bird the under tail-coverts reach quite to the end of the tail, while in *I. indica* they are never less than an inch and a quarter short of the tail-tip in the males, and generally an inch and a half short in the females. I have verified this observation in so many examples from both regions that there can be no doubt of the fact."

Ever since the date of the above passage naturalists have been agreed, with greater or less unanimity, that the Malaccan *Irena* was a distinct species; and in 1854 Mr. Frederic Moore gave to it the name of *I. malayensis*. Even as the title of *I. indica*, bestowed on the Indian bird by Lord Arthur Hay, was found to be forestalled by the older name of *I. puella* (Latham), so a more ancient name for the Malaccan bird was found in an old work on the Malayan peninsula by Captain Begbie, who called it *Muscicapa cyanea*. It is common enough in collections from the Malayan peninsula; and Mr. Hume records it from Malacca, Johore, and Singapore, while, according to the late Dr. Stoliczka, it goes as high as Province Wellesley.

Nothing has been recorded of its habits, that I am aware of; and I end this article, therefore, by quoting the description given by Mr. Sharpe in his 'Catalogue of Birds.'

"*Adult male*. Similar to *I. criniger* in the distribution of its colour and in the shade of blue, but having the under tail-coverts falling short of the tail by half an inch. Total length 9·3 inches, culmen 1·0, wing 4·6, tail 3·5, tarsus 0·7.

"*Adult female*. Similar to the female of *Irena criniger*. Total length 8·5 inches, wing 4·6, tail 3·7, tarsus 0·7."

The figures in the Plate represent a pair of birds in my own collection; they are of about the natural size.





IRENA CRINIGER.

IRENA CRINIGER, *Sharpe*.

Bornean Fairy Bluebird.

Coracias puella, Raffles, Trans. Linn. Soc. xiii. p. 302 (nec Lath.).

Irena puella, Motley & Dillwyn, Nat. Hist. Labuan, p. 23 (nec Lath.).—Sclater, Proc. Zool. Soc. 1863, 217.

Irena cyanea, Salvad. Uccelli di Borneo, p. 151 (nec Begbie).

Irena turcosa, Sharpe, Ibis, 1876, p. 44 (nec Walden).

Irena criniger, Sharpe, Cat. Birds, iii. p. 267.—Id. Proc. Zool. Soc. 1879, p. 338.—Id. Ibis, 1879, p. 257.

THE present representative of the genus *Irena* is distinguished by the extreme length of the blue under tail-coverts, which reach to the very end of the tail, the upper tail-coverts extending nearly as far. It is one of the handsomest species of a genus where all the species are beautiful.

In Borneo it appears to be generally distributed. Mr. Motley met with it near Banjermassing; and it seems to be especially plentiful in the Sarawak district, to judge from the large series collected by the Marquis Doria and Dr. Beccari, while Mr. Alfred Everett has also sent several examples from the same locality. The latter gentlemen also met with it at Bintulu, further up on the west coast of Borneo; and Governor Ussher forwarded specimens from Lumbidan, in the north-western part of the island. Here, too, Mr. Treacher obtained it, and says that it is called by the natives "Lalu." This is also its native name in the island of Labuan, the natural history of which has been so thoroughly explored by the two gentlemen just named. Lastly, Mr. W. Pryer has recently met with the species in Sandakan, in North-eastern Borneo.

In the island of Labuan, Governor Ussher states, it is by no means rare, and is generally to be found on the small species of *Ficus*, devouring the berries; it is extremely noiseless in its flight, and flits into the thick bush when disturbed; it is generally seen from April to September.

The species also occurs in the island of Sumatra, and presents us with another example of the affinity that exists between the avifauna of Sumatra and that of Borneo. In the present instance Mr. Sharpe has compared specimens from both localities, in the British Museum, and has found them to be perfectly identical. The *Irena* from Java is a distinct species from the one inhabiting Sumatra and Borneo.

As no detailed description of the bird's habits has yet been published, I must content myself with adding the diagnosis of the species given by Mr. Sharpe in the 'Catalogue of Birds.'

"*Adult male*. Blue and black, as in the rest of the genus, the hue of the blue colour being intense cobalt, very rich on the head; the under tail-coverts produced to the very end of the tail, the upper tail-coverts also nearly as far; bill and legs black; iris red. Total length 9·3 inches, culmen 0·95, wing 4·6, tail 3·25, tarsus 0·65.

"*Adult female*. Of the usual dull blue colour which distinguishes the hen birds in this genus."

The figures in the Plate represent the two sexes, of the size of life, and are drawn from specimens in my own collection.





IRENA PUELLA.

IRENA PUELLA.

Indian Fairy Bluebird.

Fairy Roller, Latham, Gen. Synopsis, Suppl. p. 87.

Coracias puella, Lath. Ind. Orn. p. 171.—Daudin, Traité, ii. p. 264.

Irena puella, Jerdon, Madras Journal, xiii. p. 262.—McClell. Proc. Zool. Soc. 1839, p. 160.—Gray, Gen. Birds, i. p. 288, pl. 70. fig. 3 (1847).—Horsf. & Moore, Cat. of Birds Mus. E.I. Co. p. 273 (1854).—Jerdon, B. India, ii. p. 105 (1863).—Gray, Hand-l. Birds, i. p. 288 (1869).—Stoliczka, Journ. As. Soc. Beng. xxxix. pt. 2, p. 318 (1870).—Wald. Ibis, 1871, p. 170.—Holdsw. Proc. Zool. Soc. 1872, p. 452.—Wald. Ibis, 1873, p. 306.—Armstrong, Stray Feathers, 1876, p. 326.—Sharpe, Cat. Birds Brit. Mus. iii. p. 268 (1877).—Fairbank, Str. F. 1877, p. 406.—Hume & Davison, Stray Feathers, 1878, pp. 328, 516.—Hume, Str. F. 1879, p. 99.—Legge, Birds of Ceylon, p. 466 (1880).—Sharpe, Cat. Birds Brit. Mus. vi. p. 177 (1881).

Irena indica, A. Hay, in Blyth's Report, Journ. As. Soc. Beng. xv. p. 309 (1846).—Bonap. Consp. i. p. 349 (1850).

THIS is the best-known of all the Fairy Bluebirds; and, in giving several illustrations of the different species of the genus *Irena*, I have been desirous of illustrating one of the most interesting and peculiar forms of Asiatic bird-life. The systematic position of the genus *Irena* has been one that has puzzled a good many naturalists; and it has been variously placed in the families Dicuridæ and Brachypodidæ. Mr. Bowdler Sharpe placed the genus among the Dicuridæ in the third volume of the 'Catalogue of Birds;' but, recognizing his mistake, he has lately, in his sixth volume, republished the descriptions, and classified the genus with the Bulbuls. To this conclusion he was led by the arguments used by the late Marquis of Tweeddale, in his critique on the third volume of the 'Catalogue of Birds;' and I do not think I can do better than reproduce some of the observations made by his Lordship on that occasion.

"*Irena*. The true systematic position of this genus has divided the opinions of ornithologists ever since Horsfield founded it. Temminck first classed it among the Dicuridæ; and so have other authors since, and Mr. Sharpe does the same. Jerdon placed it (following Blyth) among the short-legged Thrushes, and made it constitute a separate subfamily, Ireninæ, the third among the Brachypodidæ, arranging it between the Phyllornithinæ and the Oriolinæ. In Jerdon's view I must undoubtedly concur. The affinity between *Irena* and *Dicrurus* is more apparent than real; it is an affinity of mimicry at best. The contour of the bill has a superficial resemblance; but the margins of the commissure are inflected in *Irena*; in *Dicrurus* they are spreading. In the last the rictal bristles are developed (a certain indication of insectivorous habits); in *Irena* they are short, weak, almost absorbed. In the gradation of the quills there is some analogy; but in *Irena*, the 3rd, 4th, and 5th are usually equal and longest, whereas in *Dicrurus* the 3rd is generally shorter than the 4th and 5th. Beyond these points all resemblance ceases. The tarsus and feet are short and weak in *Irena*; the toes and nails are singularly slender for the size of the body; and the outer toe is free, whereas in *Dicrurus* it is ankylosed up to the first joint. The tail consists of twelve rectrices, and not of ten; and this character of itself removes *Irena* from the Dicuridæ, according to Mr. Sharpe's own definition. The plumage is of a totally different character. The skin in *Irena* is especially tender; in *Dicrurus* it is exceedingly tough. In *Dicrurus* the sexes wear the same plumage, even the ornate plumes; in *Irena* the male has a brilliant and the female a sombre attire. Every species of *Irena* has a number of fine nuchal hairs, which are wanting in *Dicrurus*. This last character (unknown to Blyth and Jerdon), together with the short and weak feet, indicates a great affinity to *Crimiger*. The *Dicruri* are insectivorous, some even killing small birds, whereas *Irena* is frugivorous. The structure of the sternum in *Dicrurus* is, I believe, different from that of *Irena*. The notes of *Irena* are those of *Oriolus*, and have no similarity to those of *Dicrurus*."

The Indian Fairy Bluebird is found in the forests of Southern India. Jerdon states it is far from uncommon in the lofty jungles of Malabar, and he also met with it in forests near Palghautcherry, Trichoor, the Wynaad, and on the Coonoor Ghât as high as 4000 feet and upwards; it is also found in Travancore, in the Neilgherri Mountains, and the Palani Hills, ranging as high as 4000 feet in the latter locality according to Dr. Fairbank, who also met with it in the Sawant-wade woods in the Khandala district. It is very rare in Ceylon, having only been known to occur in that island on three occasions, twice near Kandy, and once near Saffragam. Although it has been said to have been met with near Schwan, in Scinde, Mr. Hume has pointed out that it was in all probability a caged specimen which had been killed, as this locality is so far out of the bird's range that it is scarcely possible for it to have occurred in a wild state. It is not known from any part of the Himalayas until Sikkim is reached; but eastwards from that country it occurs

throughout the whole of the Indo-Chinese countries, ranging into Siam and Cochin-China. It extends as far south as Tenasserim; but Mr. Hume states that near Mergui in the latter province there is already exhibited a tendency towards the Malayan race, *I. cyanea*. Mr. Oates states that he found it extremely abundant in all the evergreen forests on the eastern slopes of the Pegu hills, but that it is never seen on the western slopes or on the plains.

In his paper on the birds of the Thoungyeen valley, Captain Bingham describes his finding of a nest as follows:—"On the 11th of April I was slowly clambering along a very steep hill-side overlooking the Queebaw choung, a small tributary of the Maplay stream, when from a tree, whose crown was below my feet, I startled a female *Irena puella* off her nest. I could see the nest and that it contained two eggs; so I shot the female, who had taken to a tree a little above me. On getting the nest down I found it a poor affair of little twigs, with a superstructure of moss shaped into a hollow saucer, on which reposed two eggs, large for the size of the bird, of a dull greenish white, much dashed, speckled, and spotted with brown. They were so hard set, that I only managed to save one, which measured 1.09 by 0.77 inch."

The following description of the habits of the birds is copied verbatim from Captain Legge's 'Birds of Ceylon':—"The Fairy Bluebird associates in small parties and affects lofty trees in foliage, feeding on their fruit. It is entirely a fruit-eating bird, and in this respect shows its affinity to the rest of the short-legged Thrushes (*Brachypodidæ*). It is never found, says Mr. Davison, in the deciduous forests of Tenasserim. The tenacious manner in which it confines itself to the evergreen jungle is remarkable; for he writes, 'About Pappoon, where the forests are deciduous, I never saw one; but, again, about twenty miles to the north of that place, the bird reappears with evergreen forests.' The constantly recurring supply of food in the latter naturally accounts for the predilection of the Bluebird for them; but it is strange that when deciduous woods are found in their vicinity it does not wander through them during the season of fruition. Mr. Davison writes:—"It is almost always found in flocks, but occasionally in pairs or even singly. It is a very bright and lively bird, always on the move, hopping from branch to branch or tree to tree, uttering its fine note, which resembles exactly the words 'be quick, be quick.'" They live on fruit, I believe, exclusively, and are especially fond of figs; and where a fig-tree is in fruit great numbers congregate, with Hornbills, Green Pigeons, Fruit-Pigeons, and numbers of other fruit-eating birds. In the middle of the day they habitually come down to the banks of streams and the smaller rivers to drink and bathe.' Jerdon styles its note 'a fine mellow warble, which it is constantly repeating, both when feeding and when it flies from one tree to another.'"

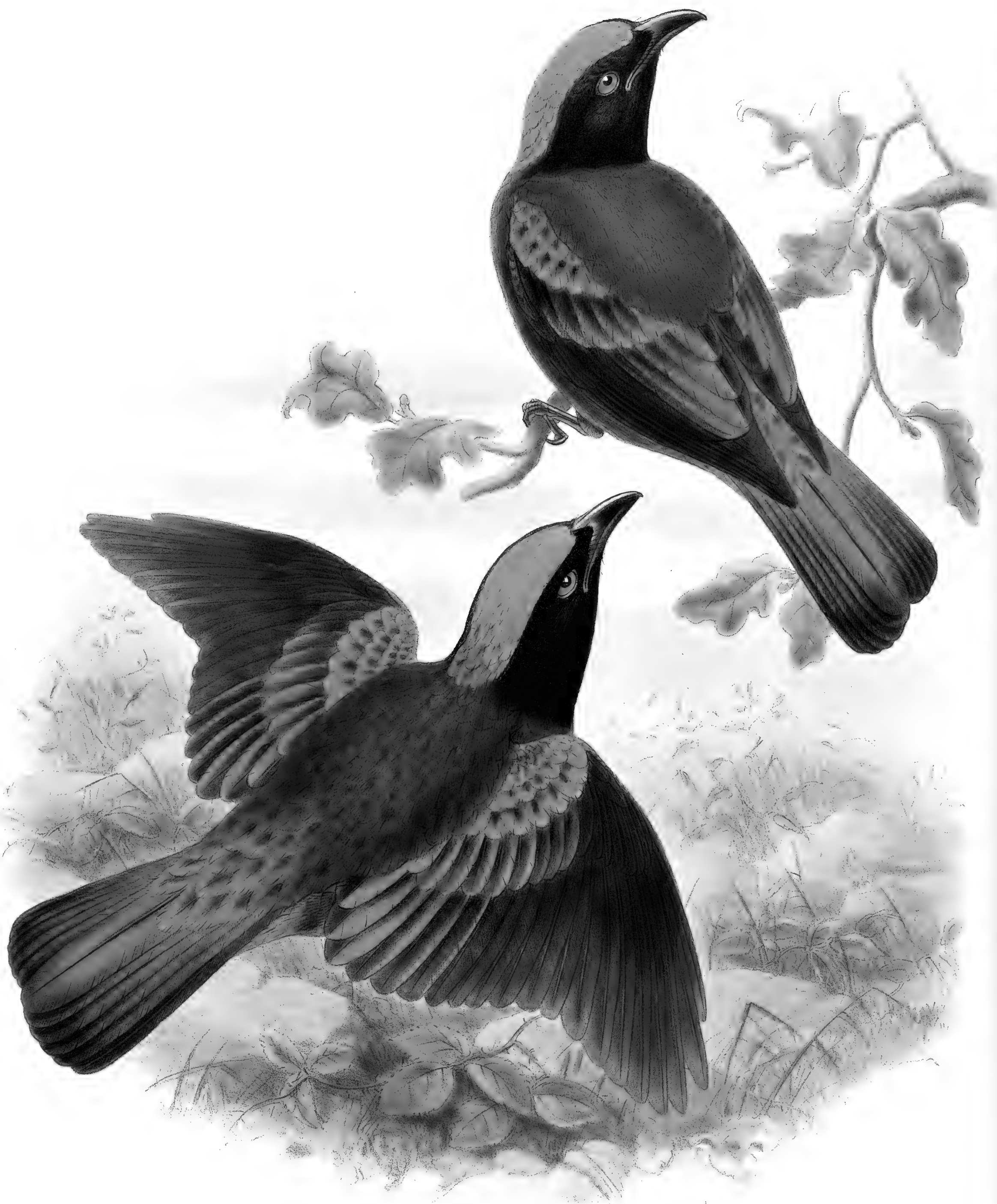
I add the description of the species given by Mr. Bowdler Sharpe in the 'Catalogue of Birds':—

"*Adult male*. General colour above deep purplish cobalt, of a purer blue shade somewhat on the forehead; scapulars as well as the breast and median coverts coloured exactly like the back, the greater series blackish, with a cobalt-blue spot at the tips of some of them; quills and tail black, with a slight bluish shade on the secondaries and central tail-feathers; lores, feathers over the eye, sides of face, sides of neck, and entire under surface, including the thighs and under wing-coverts, black; under tail-coverts deep purplish cobalt; bill and legs black; iris ruby-red. Total length 10 inches, culmen 0.95, tail 4.45, tarsus 0.75, distance between tip of tail-coverts and tip of tail 1.6.

"*Adult female*. Different in colour from the male, being of a dull Prussian blue, a little brighter and inclining to cobalt on the rump and upper and under tail-coverts; wings and tail dark brown, the quills narrowly edged and the secondaries and tail-feathers washed with dull blue, the latter more conspicuously."

The Plate represents a pair of birds of the size of life, drawn from examples in my own collection.

[R. B. S.]



IRENA CYANOASTRA, Vigors.

IRENA CYANOASTRA, *Vigors*.

Blue-mantled Fairy Bluebird.

Irena cyanogastra, Vigors, Proc. Zool. Soc. 1831, p. 97.—Gray & Mitchell, Genera of Birds, i. p. 288, pl. 70.—Bonap. Consp. Gen. Av. i. p. 349.—Cass. United-States Exploring Exped., Aves, p. 143.—Gray, Hand-list of Birds, i. p. 288.—Walden, Trans. Zool. Soc. ix. p. 190.—Sharpe, Cat. Birds, iii. p. 266.—Id. Trans. Linn. Soc. n. ser. Zool., i. p. 352.—Wardlaw Ramsay, Orn. Works of Marquis of Tweeddale, p. 657.

Two species of the genus *Irena* are distinguished by having the under surface of the body blue instead of black. Both these species are confined to the Philippine Archipelago, one of them, the subject of the present article, being an inhabitant of Luzon and Panay, while it is represented in the island of Basilan by *I. melanochlamys*.

Although the present species has been known to science ever since the year 1831, no details have as yet been published of its habits; and I must refer my readers to the accounts published of *Irena puella*, as the habits of all the members of the genus are doubtless similar. If, as Dr. Meyer states, the sexes are alike in plumage, it would differ in this respect from all its allies. Without affirming the absolute correctness of Dr. Meyer's statements, I must admit that of all the specimens examined by me, none have shown any difference in their plumage; but its Basilan representative has the sexes differing in the manner usual with the *Irenæ*.

The following description is copied from Mr. Sharpe's 'Catalogue of Birds':—

"*Adult male*. General colour above deep purplish blue, slightly varied on the rump with ashy brown, where the traces of the feathers show through; the scapulars resembling the back; least and median wing-coverts deep cobalt-blue, the greater series black, shading off into deep cobalt at the tip, very slightly on the outermost, conspicuously on the inner ones; primary coverts black, the quills black, the inner secondaries externally deep cobalt like the wing-coverts, the greater upper tail-coverts deep cobalt, brighter than the lower back; tail black, washed with deep purple, more plainly on the centre feathers; crown of head and nape deep cobalt-blue, a little brighter on the fore part of the crown; lores, sides of face and of neck, entire throat, and chest black; rest of under surface deep purplish blue like the back; under tail-coverts deep cobalt-blue; thighs and under wing-coverts brown, washed with purplish blue; iris red. Total length 10 inches, culmen 1·15, wing 5·35, tail 4·4, tarsus 0·85."

The figures in the Plate are of the size of life, and are drawn from specimens in my own collection.

[R. B. S.]





IRENA MELANOCHLAMYS, Sharpe.

IRENA MELANOCHLAMYS, *Sharpe.*

Black-mantled Fairy Bluebird.

Irena melanochlamys, Sharpe, Cat. Birds, iii. p. 266.—id. Trans. Linn. Soc. new series, Zool. i. p. 352.—Tweedd. Proc. Zool. Soc. 1879, p. 71.—Wardlaw Ramsay, Orn. Works of Marquis of Tweeddale, p. 649.

THE present species is the representative in the island of Basilan of *Irena cyanogastra*, Vigors, of Luzon and Panay; it differs, however, in having the back and mantle black instead of deep blue.

All that is known of the present bird is contained in the bare record of its discovery by Dr. Steere in Basilan, and that since then Mr. Alfred Everett has met with it in the same island, the latter gentleman giving the colour of the iris as "pure Indian red."

The following is a transcript of the original description given by Mr. Sharpe:—

"*Adult male.* Crown of head and nape glistening purplish cobalt, extending to the middle of the hind neck; sides of neck, mantle, and scapulars deep velvety black; lower back and rump dull purplish cobalt, much brighter on the upper tail-coverts; wings black, the lesser and median series purplish cobalt, the greater series black, tipped with the same cobalt, the innermost, as well as the inner, secondaries externally of the same colour; tail black, shaded with purple on the centre feathers and the outer webs of the others; lores, feathers above and round the eye, throat and fore neck deep velvety black, the rest of the under surface dull purple, the under tail-coverts bright purplish cobalt; under wing-coverts dull purple; bill black; legs black; iris carmine. Total length 10 inches, culmen 1·05, wing 4·8, tail 4·1, tarsus 0·7."

The figures in the Plate represent a male bird in two different attitudes, a little less than the size of life. They were drawn from the typical example kindly lent to me by Professor Steere during his visit to England.

[R. B. S.]





COPSYCHUS SAULARIS.

J. Gould and H. C. Richter, del et lith.

Walter & Cohn, Imp.

COPSYCHUS SAULARIS.

Dial Bird.

- Gracula saularis*, Linn. Syst. Nat., tom. i. p. 165.—Ib. Gmel. edit., tom. i. p. 397.—Lath. Ind. Orn., vol. i. p. 192.
Sternus saularis, Daud. Orn., tom. ii. p. 321.
Lanius Bengalensis niger, Briss. Orn., tom. ii. p. 184.
Copsychus saularis, Wagl. Syst. Av., sp. —Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 889, vol. xvi. p. 139.—
 Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 166.—Gray and Mitch. Gen. of Birds, vol. i. p. 177.
 —Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq.,
 p. 67.—Bonap. Consp. Gen. Av., tom. i. p. 267.—Layard, Ann. Nat. Hist., 2nd ser. vol. xii. p. 263.
 —Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 275.—Sclat. in Proc. of Zool.
 Soc. 1861, p. 186.—Swinh. in Ibis, vol. ii. p. 54.
Gryllivora intermedia, Jerd. Madras Journ. of Lit. and Sci., vol. x. p. 263.
Dahila docilis, Hodgs. Asiat. Res., vol. xix. p. 189.
Kittacincla melanoleuca, Less. Rev. Zool. 1840, p. 354.
Fringilla nigra, Klein, Av., p. 98.
The Little Indian Pye, Edw. Nat. Hist. of Birds, part iv. pl. 181.
Dial Grakle, Lath. Gen. Syn., tom. ii. p. 265; Supp., p. 91.—Marsd. Hist. of Sumatra, p. 98.—Lath. Gen. Hist.,
 vol. iii. p. 165.
Magpie Robin, English in Ceylon, Layard.
Dayal, Beng., Hamilton, Blyth.
Day-yur or *Deyr*, Hind, Jerdon.
Polichia, Cing., Layard.
Caravy cooroori, "Charcoal Bird," Mal., Layard.
Chuy-kam-chay, at Amoy, Swinhoe.

To say that the "voice of song" is denied to the birds of India would be untrue; for that favoured land, as well as most others, comprises some beautiful musicians among its ornithological productions; and the Shama, the Dayal, and the Bulbul of India are scarcely inferior in musical powers to the celebrated Mocking-Bird of America, or our own no less celebrated Nightingale. So conspicuous in this respect is the present bird that it has attracted the notice of nearly every writer on the birds of India; and I cannot do better than give a transcript of the interesting accounts they have placed on record.

"The *Dayal*," says Mr. Jerdon, "is generally spread throughout India, and frequents jungles, gardens, avenues, topes, &c. It is solitary, frequenting thick trees and bushes; feeds on the ground, flying down from a low branch (its usual perch), and frequently hopping a few steps on the ground, jerking its tail well up every now and then. On securing an insect, it flies back to its perch, elevating its tail on reseating itself, and uttering a pleasant warble. Towards evening, it may often be seen near the top of some lofty tree in the jungle, pouring forth its agreeable song, which, however, must yield the palm to the Shama."

Captain Hutton states that it "arrives on the hills, up to 5000 feet, in the beginning of April. It returns to the Doon and the plains in early autumn. It breeds in May, on the 19th of which month I took a nest from a bank by the roadside; it was composed of green mosses, and lined with very fine roots. Eggs four, carneous cream-colour, somewhat blistered at the larger end; diameter $\frac{12}{16} \times \frac{8}{16}$ in. Delights to sit on the topmost branches of a tree, generally selecting a dry and leafless twig, from whence it utters a pleasing song, which is replied to by another individual at no great distance. When on the ground, it hops with the wings half open or drooping, and at each hop it stops to jerk and spread its tail."

Mr. Hodgson informs us that "The *Dayals*, if found in the wilds, tenant meadows and grass-land provided with brushwood; but they are nowhere so common as in gardens and on lawns, which they enliven in spring by their song, and at all times by their vivacity and familiarity. They dislike and avoid the interior of woods. Their usual food is grubs, worms, beetles, grasshoppers, and their congeners; rarely, in winter, they take unripe vetches and such like, but never gravel, sand, or hard seeds. They move quickly on the ground, yet perch firmly and readily, frequently watching for their prey on a low twig, to which they return as soon as they have beaten it to death on the ground. They never seize on the wing. When cattle pass their way, they will partially attend on the herd, descending occasionally from their perch to snatch up the insects and grubs brought to light by the act of grazing. These birds are perpetually in motion, and raise and depress the body, with flirtation of the tail, exactly in the Wagtail manner. Their habits of society, in respect to their own kind, are solitary, or nearly so, except in the breeding-season, when these monogamous and attached birds steadily unite to rear and defend their young. The female usually lays five spotted eggs, bringing up from three to four young ones, and but once a year unless the first brood has failed or been rifled from her. The nest is carelessly made of grass, but is always placed in a secure and sheltered position—

commonly a hole in a wall, sometimes the interior of a low, thick, prickly plant. The *Dayal* is one of the boldest and most docile of birds, and is perpetually caged, both for his song and his pugnacity. Few of the Thrushes have a finer note; nor is it degraded by apish tricks of imitation, though this intelligent bird will lend its courage for the profit or amusement of its keeper. In the spring the male birds are perpetually challenging each other, and no sooner is the defiance of one uttered than it is answered by another. The professional bird-keeper, availing himself of this propensity, takes out his tame male on his fist, and proceeds to the nearest garden or grove; the bird, at his bidding, presently challenges; the wild one immediately answers: the former is then slipped, and a desperate contest ensues between the two, during which the fowler readily secures the wild bird, with the tame one's assistance; for the latter will deliberately aid his owner's purpose, seizing the wild bird at the critical moment with both claws and bill, and retaining it till his master comes up, in case it has not been so much exhausted by the previous contest as to be disabled from flying away at the man's approach. Fighting the tame birds is a favourite amusement with the rich, nor can any race of game-cocks contend with more energy and resolution than do these birds."

Mr. Layard informs us that, in Ceylon, "this familiar household bird is called the 'Magpie-Robin' by Europeans; and the natives regard it with as much interest as we do our own red-breasted favourite, of which it is the Eastern representative. It is seldom seen away from habitations, about which it usually builds, though the nest is often placed in a thick bush or hollow tree. The eggs, commonly four in number, are bright blue, thickly spotted with brown at the obtuse end. The food is insects, of all kinds and in all stages, captured on the ground and on trees. They have a variety of notes, and the song poured out in the fulness of their joy in the pairing-season is very pleasing. On the top of a towering cotton-tree, opposite my residence in Colombo (in Ceylon), a Magpie-Robin daily for some weeks charmed me with its song, whilst his mate sat brooding her eggs or callow nestlings in the roof of a native hut beneath him. One morning, after the young had left the nest and betaken themselves to the neighbouring compounds, I was attracted by cries of distress from various birds and squirrels, and, above all, I heard the seemingly plaintive mewing of a cat. I had no living specimen of the last in my museum; so, wondering what could be the matter, went into my garden to see. I found the mewing proceeded from my friends the Robins, who were furiously attacking something in a bush, whilst the birds and squirrels screamed in concert. There I found one of the young Robins (whose plumage, by the way, at that early age, much resembles that of the European bird, being speckled with yellow) caught, as I thought, in the tendrils of a creeper. I put out my hand to release it, when, to my surprise, I saw the glittering eyes of the green whip-snake (*Trimesurus viridis*, Lacép.), in whose fangs the bird was struggling. I seized the reptile by the neck and rescued the bird, but too late; it lay panting in my hand for a few moments, then fluttered and died. On skinning it, I found no wound, except on the outer joint of the wing by which it had been seized, and am confident that fear alone deprived it of life. A favourite attitude of this bird is, standing with the tail elevated over the back, either perpendicularly or thrown so much forward as to nearly touch the head, the wings drooping; in this position they only utter a low note. During the dry season some of our birds become so discoloured with the dust of our red Kabook soil, that they are useless as specimens for preserving."

Latham states that this species "is one of those birds which are used when invoking the name of God — a custom which those of India have borrowed of the Hindoos. Dr. Buchanan adds that at Calcutta it is commonly called Doil by the Bengalese; in Persia, Dahool or Dahale, and there kept only for its song. It makes an artless nest of sticks and hair on the branches of trees; the eggs pale greenish blue, with brown spots, most numerous at the large end."

"This very sprightly bird," says Capt. Boys, "frequents the trees and bushes of the gardens, and, like the English Robin, carries its tail very erect, which gives it a bold appearance. It is very familiar, and has a sweet note. Its food consists of insects; and it builds in the chinks and holes of walls, forming its nest of small dry twigs and grass roots, and laying five greenish-blue eggs, blotched all over with brown, but mostly at the larger end."

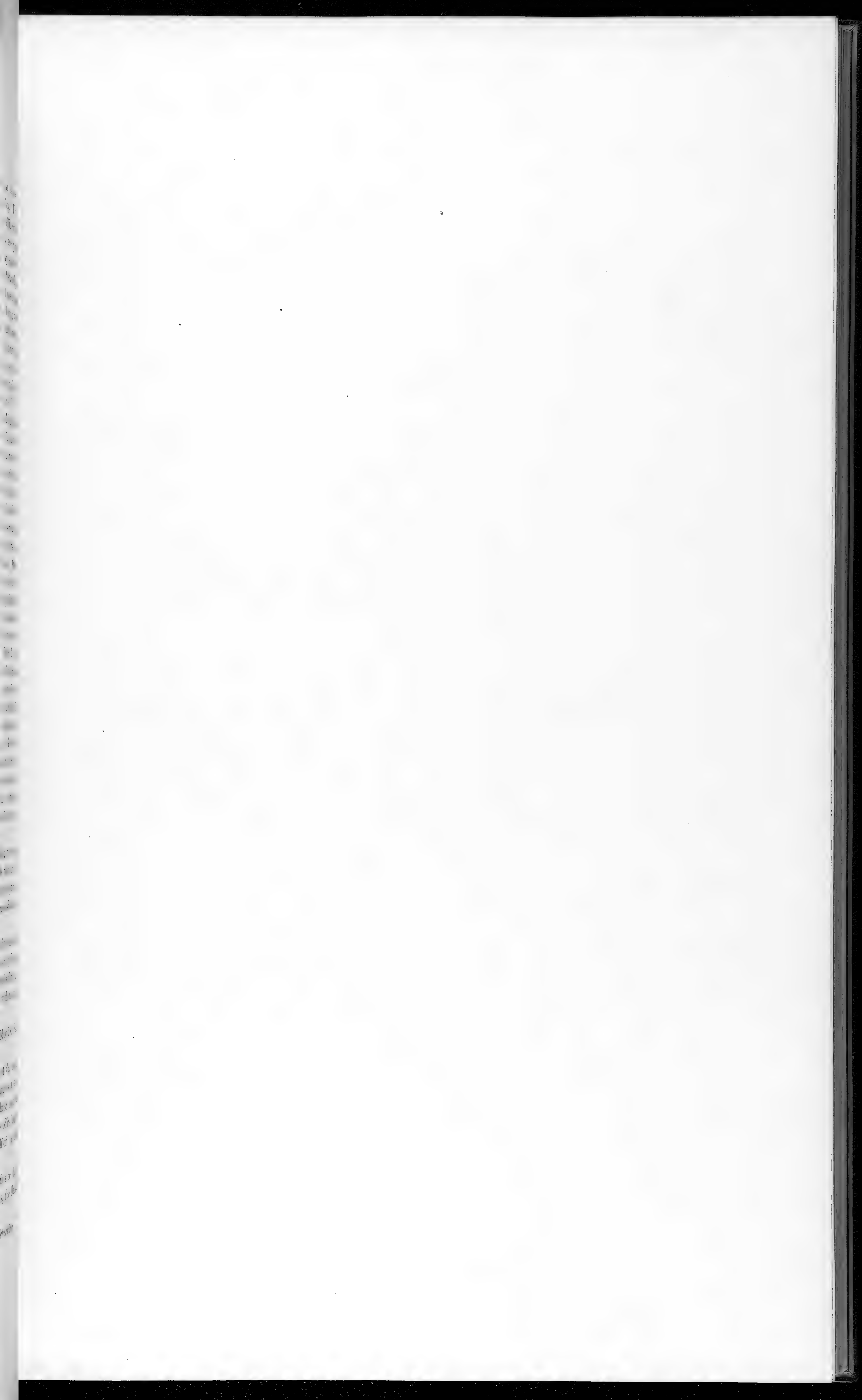
"Specimens obtained at Sultanpore, December 8, 1839; and a nest at Almorah, May 28, 1842."

Mr. Swinhoe says it is "a common resident" at Amoy.

The male has the head, all the upper surface, throat, chest, and upper portion of the abdomen steely black; wings dull black, with the exception of the upper rows of coverts and the margins of several of the secondaries, which are pure white, forming a conspicuous stripe along the wing; three outer tail-feathers white; the next on each side white, broadly margined on the inner web for five-sixths of its length from the base with deep black, which is also the hue of the remaining tail-feathers, lower half of the abdomen and under tail-coverts white; irides brown; bill and legs black.

The female differs in having the upper surface dark grey, washed on the back with steel blue, the face, throat, and chest grey, the wings brown, the white mark on the wing less conspicuous, the black of the tail much less intense, and the white of the abdomen washed with greyish buff.

The Plate represents both sexes, of the size of life. The plant is the *Thibaudia pulcherrima*.





COPSYCHUS MINDANENSIS.

J. Gould and H. C. Richter, del. et lith.

Walter & Cohen, Imp.

COPSYCHUS MINDANENSIS.

Malacca Dial Bird.

Merle de Mindanao, Buff. Hist. Nat. des Ois., tom. iii. p. 387.—Id. Pl. Enl., p. 627, fig. 1.

Turdus mindanensis, Gmel. edit. Linn. Syst. Nat., tom. i. p. 823.—Lath. Ind. Orn., vol. i. p. 353.

Copsychus mindanensis, Blyth, Journ. Asiat. Soc. Beng., vol. xvi. p. 139.—Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 166.—Id. Ann. and Mag. Nat. Hist., vol. xx. p. 317.—Bonap. Consp. Gen. Av., tom. i. p. 267.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 278.—Moore in Proc. Zool. Soc., part xxii. p. 282.—Sclat. in Proc. Zool. Soc. 1861, p. 186.

Lanius musicus, Raffl. Trans. Linn. Soc., vol. xiii. p. 307.

Gryllivora magnirostra, Swains. in Lard. Cab. Cyc. Anim. in Menag., p. 291 ?

——— *intermedia*, Id. ib., p. 291 ?

——— *rosea*, Id. ib., p. 342 ?

——— *brevirostra*, Id. ib., p. 292 ?

Mindanao Thrush, Lath. Gen. Syn., vol. iii. p. 69.—Shaw, Gen. Zool., vol. x. p. 250.—Lath. Gen. Hist., vol. v. p. 77.

Choche, Malay, Blyth.

Moorai or *Moorai Kichou*, Sumatra, Raffles.

THIS species, to which I have given the trivial name of the Malacca Dial Bird, is the representative in the Malaccan Peninsula of the *Dayal* of India; and if the above list of synonyms be correct, it will be seen that, like that bird, it has attracted the notice of numerous ornithologists. Besides being a native of Malacca, where it is common in the neighbourhood of Penang, it was also observed in Sumatra by the late Sir Thomas S. Raffles, who gave it the specific appellation of *musicus*, a term which indicates that, like its near ally (*C. saularis*), it is a beautiful songster. I have never yet seen examples of this bird from Mindanao or any other of the Philippine Islands, nor do I believe that it is ever found there; Gmelin's specific name of *mindanensis*, therefore, is by no means an appropriate one.

As might be expected, the sexes exhibit the same difference in their colouring which occurs in the *C. saularis*, the female having the upper surface of a lighter hue, and the throat and breast grey instead of black.

The male has the head, all the upper surface, throat, chest, and upper half of the abdomen steely black; wings dull black, with the exception of the upper rows of coverts and the edges of the seventh and eighth secondaries, which are pure white, forming a conspicuous stripe along the wing; three outer tail-feathers white, with an oblique mark of black on the base of the interior web, small on the first, larger and occupying a part of the base of the outer web of the second, and greatly increased on both webs of the third; the fourth feather black, with a white tip and a wedge-shaped mark of the same hue pointing backwards from the white tip towards the base of the feather on the outer web; the remaining tail-feathers wholly black; lower part of the abdomen and under tail-coverts white; irides brown; bill and legs black.

The female differs in the upper surface being less intense in colour, and in the throat and chest being grey instead of black.

The Plate represents both sexes, of the size of life, on the *Gordonia Javanica*.



COPSYCHUS SUAVIS, *Solal*

J. Gould and H. C. Richter, del. et lith.

Walter & Cohen, Imp.

COPSYCHUS SUAVIS, *Sclat.*

Chestnut-bellied Dial Bird.

Copsychus suavis, Sclat. in Proc. of Zool. Soc. 1861, pp. 185, 187.

THE figures on the accompanying Plate represent both sexes of a species of *Copsychus* from Borneo, which Dr. Sclater believes to have been without a scientific appellation until the Meeting of the Zoological Society held in the evening of April the 23rd, 1861, when he assigned to it that of *suavis*, and made the following observations as to its specific value:—

“I have selected two examples of this pretty species of *Copsychus* out of a small collection of bird-skins from Banjermassing in Southern Borneo, now in the hands of Mr. S. Stevens. Its nearest ally is that well-known beautiful songster the *Copsychus macrurus* of India, from which, however, it is readily distinguished by its larger size, shorter tail, and the three lateral rectrices (as well as the outer web of the next pair) being wholly of a pure white. There are, however, blackish edgings at the base of the inner web of the second and third pair in one of the specimens, which I take to be a male. In the other, which is probably the female, these are absent, and the three external pairs of rectrices are wholly white, the belly is paler chestnut, the plumage above more dusky, and the size smaller.” (Proceedings of the Zoological Society of London for the year 1861, p. 185.)

The male has the head, neck, breast, upper part of the back, and wing-coverts deep bluish black; primaries and secondaries dark olive-brown; lower part of the back, rump, upper tail-coverts, the three outer tail-feathers, and the external web of the fourth pure white, internal web of the fourth and the remaining tail-feathers deep black; abdomen, under tail-coverts, and thighs rich chestnut-red; irides dark brown; bill black; legs fleshy red.

The female differs only in being somewhat smaller and paler-coloured than her mate.

The figures are of the natural size.





MYIOPHONUS, (*Arrenga*). BLIGHII, *Holmesworth*.

J. Gould & W. Hart del. et lith.

Walter imp.

MYIOPHONUS (ARRENGA) BLIGHI, *Holdsw.*

Bligh's Whistling Thrush.

Arrenga Blighi, Holdsworth, Proc. Zool. Soc. 1872, p. 444, pl. xix.

THIS very well-marked species is an interesting addition to the group of birds included in the genus *Myiophonus* or Whistling Thrushes, of which six species were previously known. They have each a somewhat restricted habitat, being found respectively in Java and Sumatra, the Himalayas, China, Formosa, Java, and Southern and Western India; and the subject of our present notice is peculiar to the Island of Ceylon.

The Whistling Thrushes have been separated by some ornithologists into two groups, to one of which, containing four species all having the bill yellow, the generic name *Myiophonus* has been restricted, whilst the others, distinguished by having a black bill, have received subgeneric rank under the name of *Arrenga*. It is doubtful, however, whether this distinctive character is of sufficient importance to make the separation desirable. Bligh's Whistling Thrush belongs to the black-billed group, and is remarkable for being very much smaller than any of the other recognized forms.

Little is known of the habits of this bird; but so far as they have been observed, they agree generally with those of the other *Myiophoni*. It has only been met with on the hills, at an elevation of from 4000 to 6000 feet, where it frequents dense jungle in the neighbourhood of watercourses, appearing for a few moments perhaps close to some foaming torrent, or occasionally alighting on a rock in mid-stream. It is very impatient of observation, and when intruded on gives utterance to a peculiarly long-drawn plaintive but loud whistling note; at the same time the body is dipped and the tail slightly raised. It soon seeks shelter under the thick jungle-foliage. The natural note of this Thrush, when undisturbed, is very beautiful, and so closely resembles a soft human whistle as to deceive any but practised ears. This bird is probably not very rare in the localities it frequents; but it is far more commonly heard than seen, and the type specimens (here represented of the natural size) are the only ones known to have been brought from the island.

The species was described by Mr. Holdsworth in his Catalogue of Ceylonese birds, published by the Zoological Society of London in 1872, and was named after his friend Mr. Samuel Bligh, who first observed and obtained a specimen of it.

I trust that I duly appreciate the great kindness of Mr. Holdsworth in intrusting to my care this typical and unique species of a Ceylonese bird belonging to a group claiming considerable intimacy with *Petrocincla*.

The figures are of the size of life.





MYIOPHONEUS INSULARIS, *Could*

Could and H.C. Richter, del. et lith.

Walter & Sohn, lit.

MYIOPHONEUS INSULARIS, *Gould.*

Formosan Whistling-Thrush.

Myiophoneus insularis, Gould in Proc. of Zool. Soc. 1862, p. 280.

Myiophonus insularis, Swinh. in Ibis, 1863, p. 277.

From the information which has been recorded by Mr. Jerdon and others respecting the species of the genus *Myiophoneus*, we learn that they have many characters in common with the larger *Petrocinclæ*; the members of both genera give preference to rocky and sterile, rather than to the wooded, portions of the country, stony torrents, waterfalls, and hill-sides being preeminently the situations resorted to by the Indian members of the present form. Their song is a loud, clear whistle, not unlike, says Mr. Jerdon, that of a man or boy. The sexes are alike in colour, and they do not materially differ in size.

At least four or five species of this well-defined genus are at present known, two of which inhabit the hills of India, one China and the island of Java, and the fifth the island of Formosa. This last-mentioned species, which is figured on the accompanying Plate, differs from its Chinese representative in its larger size, in the finer blue of its breast, and in the total absence of the spangled spots of shining blue which ornament the back of that species.

“The Formosan Cavern-bird,” says Mr. Swinhoe, “haunts the dark wooded ravines of the mountains of the interior, and seldom descends below the level of 2000 feet. Like the Chinese species, its favourite position is a boulder of rock on the side of a torrent, whereon it stands expanding and shutting up its tail like a fan, and occasionally throwing it slightly upwards. It is easily startled, when it runs rather than hops over the surface of the rock, and flies off with a loud screaming note. Its song is short, but somewhat pleasant. In its manners and habits it seems to connect the Thrushes and *Petrocinclæ* with the *Pittæ*, which also love the neighbourhood of mountain streams. The shape of its ear is most peculiar, and very similar to that of the *Henicuri*, which are also cascade-loving birds. The specimens dissected usually contained the remains of Coleoptera and their larvæ.”

Lores jet-black; forehead crossed by a narrow band of shining deep blue; crown of the head, throat, back of the neck, all the upper surface, and the tail obscure blackish blue; shoulders very bright metallic blue; primaries and greater wing-coverts margined externally with bright blue; feathers of the chest and upper part of the abdomen black, with shining blue tips; lower part of the abdomen, thighs, under tail-coverts, and the under side of the tail-feathers dull black; bill and legs black; irides deep brown.

The Plate represents the bird of the size of life.





Calene albiventris, Fairb.

J. Gould & H. Richter, del. et lith.

Walter, imp.

CALLENE ALBIVENTRIS, *Fairb.*

White-bellied Callene.

Callene albiventris, Fairb., Blanf. in Proc. of Zool. Soc., 1867, p. 832, pl. xxxix.

My thanks are due to W. T. Blanford, Esq., for permission to figure in this work the present new bird, which was obtained by the Rev. S. Fairbank on the Pulney Hills, "a lofty portion," says Mr. Blanford, "of the great range which stretches along the southern parts of the western coast of India, from the remarkable gap of Paulghatcherry, which divides the range from the Nilghiri hills, to Cape Comorin. This fine tract of hill country, about 150 miles in length and, in its northern portion, 60 to 70 miles broad, contains a very interesting fauna having, as might be expected, close affinities with that of Ceylon, and also with that of the Nilghiris, but still containing many peculiar forms. It has, however, hitherto been neglected in the most remarkable manner; and there is no portion of the Indian peninsula concerning the zoology of which so little is known. . . . It is therefore not surprising that the first ornithological novelty which has been obtained from Southern India since the publication of Dr. Jerdon's list of the birds, in the years 1839-44, in the 'Madras Journal of Literature and Science,' should have been procured from the Pulney hills, a group 7000 feet in height, forming the north-eastern corner of the mountainous tract above described. It is very interesting, however, to obtain from these hills a third representative form of the genus *Callene* (formerly *Cinclidium*) of Blyth, proposed first for a species inhabiting the Eastern Himalayas (*C. frontalis*, Blyth), and made by Jerdon, undoubtedly with justice, to include a Nilghiri bird first discovered by himself (*C. rufiventris*, Blyth). This distribution illustrates one of the most remarkable peculiarities in the fauna of Peninsular India. . . . *Callene albiventris* inhabits the thick patches of forest (called Sholas), which are so remarkable a character in the hills of Southern India. It appears to be scarce. The eggs are of an olive-brown colour, darker at the larger end, measuring 0.92 and 0.63 inch in their greater and less diameters. Mr. Fairbank writes thus:—'The nest I found in a small hole (just big enough for it) in the trunk of a tree, a yard above the ground. It was neatly made of moss and fibrous roots. I surprised the female on the nest several times. She laid two eggs in April, and was incubating when I discovered and took them. In June another nest was built in the same hole, and two eggs were laid, and then the bird began to sit. . . . The song is sweet, loud, and varied, though it is generally confined to four notes—sol, la, si, do.'"—Proc. of Zool. Soc., 1867, pp. 832-834.

General plumage dull slaty black, suffused with a bloom of indigo-blue; over the forehead a narrow line of very light blue, below which, and extending to the eye, is a line of deep velvety black; under surface similar to the upper, but paler and fading into white on the abdomen, whence the specific name; bill black; feet dusky brown; irides brown.

The Plate represents the two sexes, according to Mr. Fairbank, of the size of life.





LIOPTILA ANNECTANS, Blyth.

W. Hart del. et lith.

Walter imp.

LIOPTILA ANNECTENS, *Blyth*.

Slender-billed Chat-Thrush.

Leioptila annectans, Blyth, Journ. As. Soc. Beng. xvi. p. 450 (1847).—Id. Cat. B. Mus. As. Soc. p. 337 (1849).—Jerd. B. India, ii. p. 248 (1863).—Godwin-Austen, J. As. Soc. Beng. xxxix. p. 109 (1870).
Cutia annectans, Gray, Hand-l. B. i. p. 314, no. 4690 (1869).
Lioptila annectans, Hume, Str. F. 1877, p. 110.—Id. Str. F. 1879, p. 104.

THE present species has generally been considered a connecting link between the genera *Cutia* and *Liothrix*; and its name "*annectans*" shows that Mr. Blyth regarded it as joining these two groups together. Although its exact relations were believed by him to be with *Sibia* and *Yuhina*, I myself think that its affinities are more with the Chat-Thrushes or *Thamnobiae*, and that it is an eastern representative of the African genus *Cossypha*.

The range of the present species extends from Sikhim to the Khasia hills, and in the Karen and Tenasserim hills it is replaced by a slightly darker race which was called *L. saturata* by the late Lord Tweeddale. Of the latter bird Mr. Davison gives the following account:—"I only found this bird at Mooleyit, quite near the top, usually in pairs, sometimes singly. I found it generally about the large trees surrounding the 'sakans' or camping-grounds—strange to say, climbing about the trunk and branches much after the manner of a Nuthatch. I have also seen it hunting about the leaves and smaller branches of the tree-tops. Those I killed had eaten only insects. I never remember to have heard it utter any note. It was very rare even where it did occur, and I only saw some six or seven."

The following description is of a specimen kindly lent to me by Captain Wardlaw Ramsay.

Adult. General colour above rich orange-chestnut from the lower mantle downwards; upper scapulars black, the lower ones chestnut or bordered with black; head, nape, and upper mantle black, streaked conspicuously with white, the feathers of the hind neck and mantle white on the inner web; lesser and median wing-coverts black, the feathers edged with ashy-grey; greater series black tipped with orange-chestnut, forming a wing-bar; bastard wing and primary-coverts black; quills black, margined with pale lavender-grey, the inner secondaries tipped with white, the innermost orange-chestnut near the base of the outer web; tail-feathers black, the centre ones fringed with ashy whitish, the ends pure white on the other feathers, increasing in extent towards the outermost; lores and sides of face and ear-coverts black; cheeks and under surface of body white, the flanks and under tail-coverts orange-buff; thighs ashy with whitish edgings; under wing-coverts and axillaries pure white; quills blackish below, white along the inner margin; "bill black, the base of the lower mandible yellow; legs pale fleshy brown; iris brown" (JERDON). Total length 6·5 inches, culmen 0·65, wing 3·1, tail 3·1, tarsus 0·95.

The figures in the Plate represent two specimens, of the size of life, from the above-named skins lent me by Captain Wardlaw Ramsay.

[R. B. S.]





CONDOSTOMA JENNIFER, *Hodgs.*

Condostoma jennifer (Hodgs.)

Condostoma jennifer (Hodgs.)

CONOSTOMA ÆMODIUM, *Hodgs.*

Himalayan Conostoma.

Conostoma æmodius, Hodgs. Journ. Asiat. Soc. Bengal, vol. x. p. 856.—Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 101.—Gray and Mitch. Gen. of Birds, vol. ii. p. 312.
Conostoma æmodium, Cat. of Sp. and Draw. of Mamm. and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 102.—Bonap. Consp. Gen. Av., p. 368.

For our first knowledge of this curious bird we are indebted to the researches of Mr. Hodgson, who has transmitted specimens from Nepaul to the Collections at the British Museum and the East India House. It must be regarded as one of the rarest of the Indian birds, and also as one of the most interesting of the numerous species it has been Mr. Hodgson's good fortune to make known to us. Much diversity of opinion exists among Ornithologists as to the place this bird should occupy in the natural system: Mr. G. R. Gray places it among the *Callæatinæ*, a subfamily of the *Corvidæ* or Crows, Mr. Blyth among the *Parinæ* or Tits, while Mr. Hodgson inclines to the opinion that it has an affinity to the *Glaucopinæ*: for my own part, I should have little hesitation in placing it in the subfamily of which *Crateropus* forms a part, although it does differ considerably from that form, both in the structure of the bill and the shape of the nostrils. With such a diversity of opinion existing on the subject, it is only an act of justice to the original describer to give his view in his own words:—

“Amongst the very numerous forms of birds,” says Mr. Hodgson, “known to me as inhabitants of Nepaul, there is one which I believe to be still new to science, and to belong to a group, of the occurrence of which, either in these mountains or in the plains at their base, I know no other instance save that of the ubiquitous tree Magpies. The group alluded to is the *Glaucopinæ* or Finch-billed Crows of Swainson; and the single species I am acquainted with tenants exclusively the immediate neighbourhood of the perpetual snows. In the lower and central regions it appears to be represented by the *Timaliæ* and *Crateropi*, to both of which, and especially to the former, it bears in much of its structure the same close resemblance that it does in its manners.

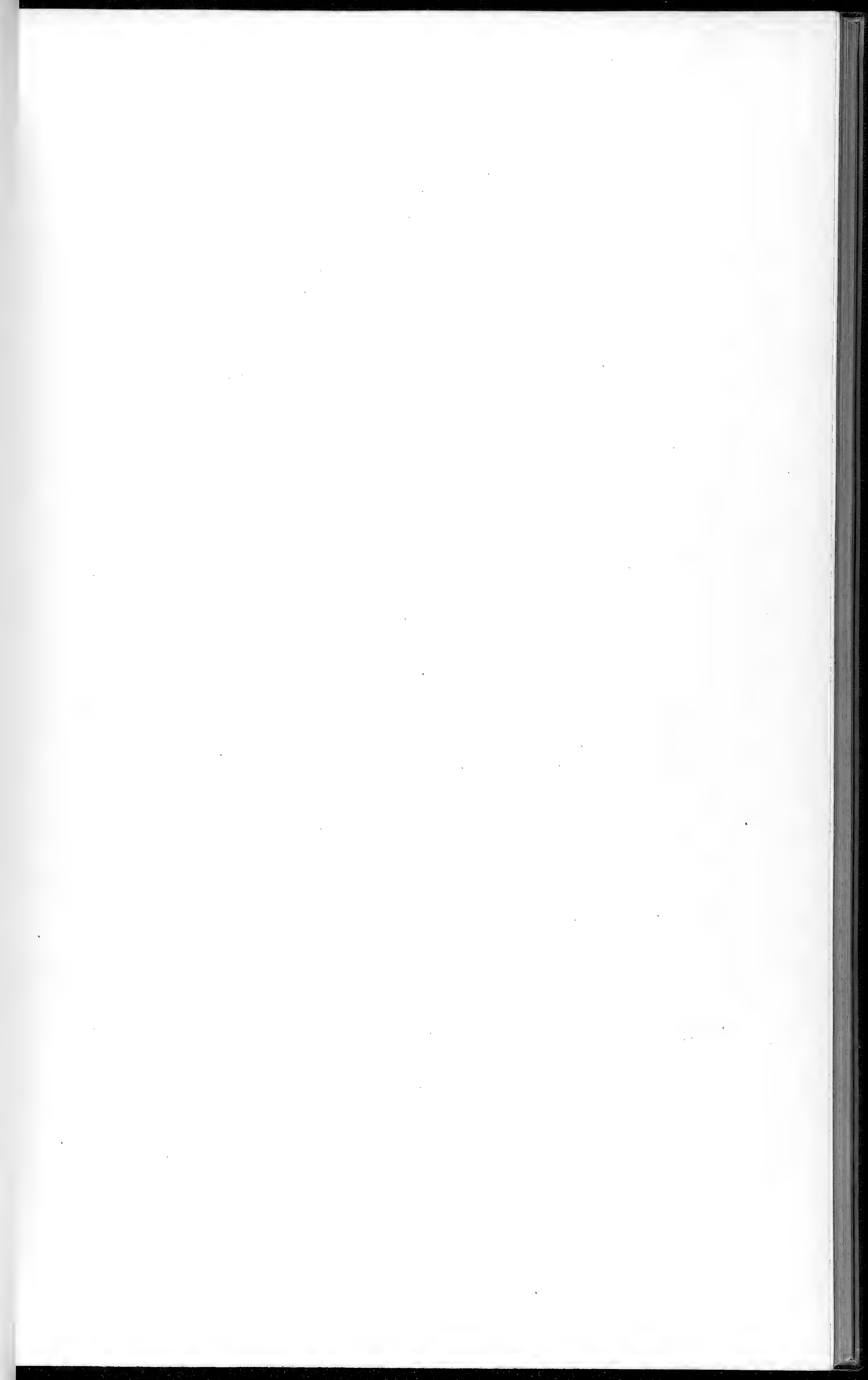
“In manners the present species is a shy forester, adhering to the wilds and tenanting the skirts of forests where brushwood as well as trees abound. Five or six birds are usually found together chattering, hopping and scraping the ground, and resorting to the trees and shrubs chiefly for shelter. Their food is principally insects of the soft and imperfect kind in summer, but in winter they doubtless take some vegetable food.

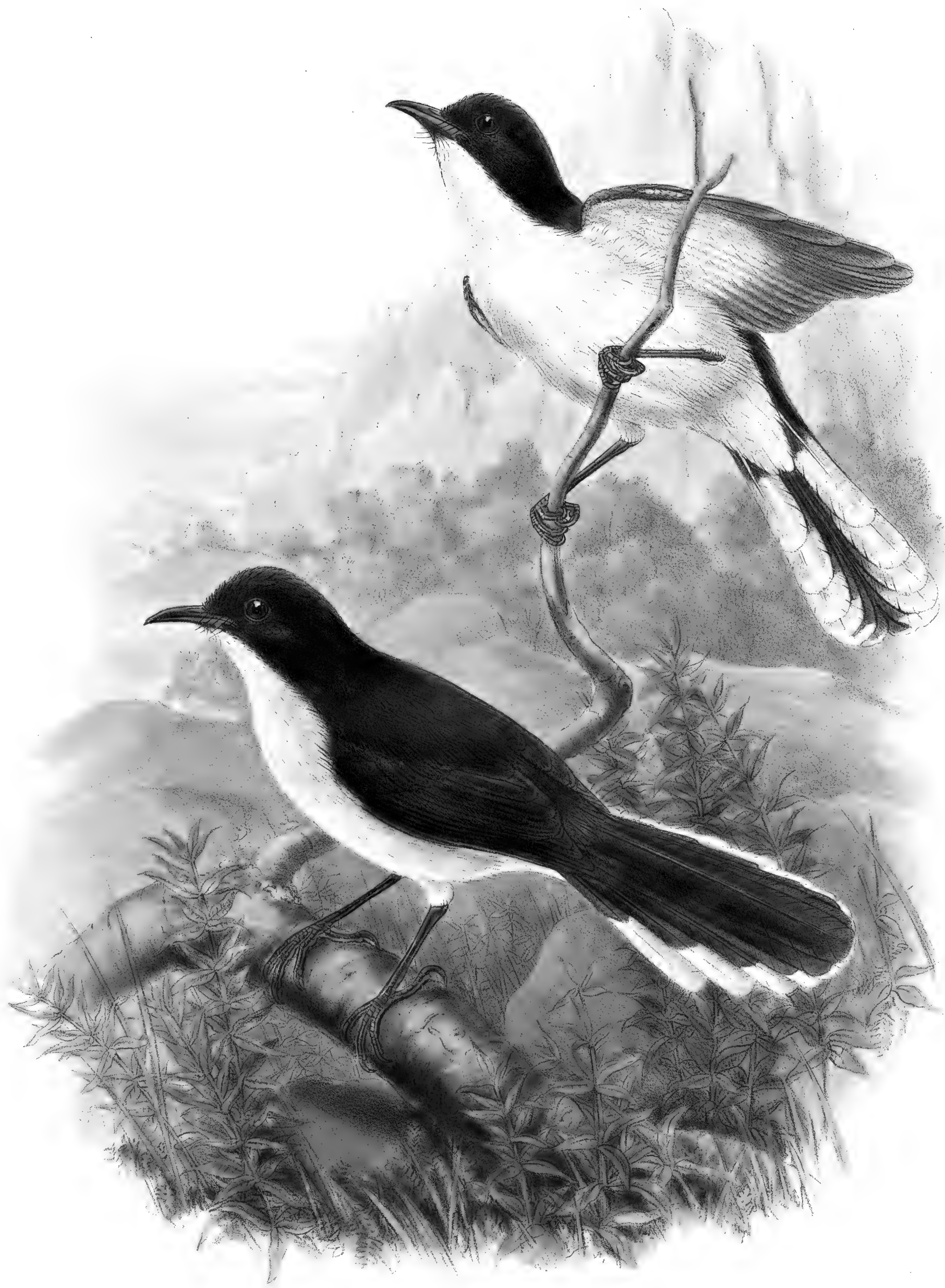
“Habitat, the northern region of Nepaul, close to the perpetual snows.”

The sexes are alike in colour, and may be thus described:—

The entire plumage dull olive-brown, paler beneath, becoming almost white on the forehead and nearly black on the lores; irides brown; bill dull orange; legs slaty-grey.

The figures are of the natural size.





SIBIA MELANOLEUCA, Tickell

W. Hart del et lith

W. Waller, imp

SIBIA MELANOLEUCA, *Tickell.*

Black-and-White Sibia.

Sibia melanoleuca, Tickell, MSS., undè

Sibia melanoleuca, Blyth, Journ. As. Soc. Beng. xviii. p. 413 (1859).—Gray, Handlist of Birds, i. p. 273, no. 4002 (1869).—Hume and Davidson, Stray Feathers, 1878, p. 293.

Sibia picata, Tickell, Journ. As. Soc. Beng. xxviii. p. 451.—Walden, Ibis, 1866, p. 355.

Malacias melanoleucus, Hume, Stray Feathers, 1879, p. 97.

THIS elegant bird was discovered by the late Colonel Tickell on the plateau of Mooleyit, in Tenasserim, at an altitude of 6600 feet. It was first described by Mr. Blyth in the Asiatic Society's Journal for 1859; and immediately afterwards Colonel Tickell himself contributed a second description of the same bird under the name of *Sibia picata*, which of course cannot be allowed to stand. Colonel Tickell says that "it was evidently exceedingly rare, or confined to elevated peaks; a pair only seen, of which the male was secured. Lively and restless, with a prattling whistle like *S. capistrata*. Incessantly hopping and flitting about the stunted trees found at that altitude (6600 feet)."

Mr. Davison writes:—"This pretty Sibia was common about the higher parts of Mooleyit, especially where the jungle was open. I found it very partial to the trees about the 'Sahans,' or camping-grounds. Its note resembles that of *Sibia capistrata*, and is a single long-drawn clear-sounding whistle, sounding like 'whee-e-e e-oo,' the 'whee' being very much prolonged, the 'oo' short and abrupt. When I was at Mooleyit, the birds were breeding, and consequently were always found in pairs. Their food consists quite as much of small berries as it does of insects, which latter they capture amongst the smaller branches and the foliage of the tree-tops, in which they are always moving about. They never descend to the ground or even amongst brushwood. I never saw them sitting sunning themselves on a bare branch, or catching insects on the wing. They have a habit of rapidly expanding and closing their tail as they move about, but without erecting it as a *Leucocerca* does. They are not at all shy birds; and there is not the slightest difficulty in approaching and shooting them."

Mr. Hume has added to the above note of Mr. Davison a capital description of the species, which I here-with copy:—"The legs and feet varied from a very dark reddish brown to a dark purplish brown or brownish black; bill black; irides lake. The lores, forehead, crown, occiput, nape, cheeks, ear-coverts, and point of the chin glossy black, with a faint greenish reflection, only the ear-coverts, in some specimens, with a slightly browner tinge; the rest of the chin, throat, breast, abdomen, and entire lower parts, including wing-lining, axillaries, and lower tail-coverts, snowy white, a little pencilled with brownish grey in most specimens towards the sides of the breast; the entire back, scapulars, and lesser and median wing-coverts a deep, somewhat chocolate-brown; rump and upper tail-coverts a dull, somewhat greyer brown; quills and greater-coverts hair-brown; the tertiaries and some of the later secondaries, towards their tips, with a more or less decided chocolate tinge; all the feathers margined on the outer webs with black, which on the quills has distinct though not conspicuous greenish reflections; tail brown; the central tail-feathers paler, and with a sort of paler chocolate tinge; the central pair narrowly, and each succeeding pair (the tail is very much graduated) more and more broadly tipped with pure white, and all the feathers fringed darker; in some almost blackish on their outer webs just towards the base."

The Plate represents a male and female of the size of life. The figures are drawn from the typical pair kindly lent me by Captain Wardlaw Ramsay, to whom I beg to tend my warmest acknowledgments.

[R. B. S.]



POMATORHINUS ERYTHROCNEMIS, *Gould.*

J. Gould and H. C. Richter, del. et lith.

Walter & Co. Imp.

POMATORHINUS ERYTHROCNEMIS, *Gould.*

Red-kneed Pomatorhinus.

Pomatorhinus erythrocnemis, Gould in Proc. of Zool. Soc. 1862, p. 281.—Swinh. in Ibis, 1863, p. 286.

ALTHOUGH the members of the genus *Pomatorhinus* extend from the Himalayas and China, through the Indian Islands, to Australia, India is the country in which the greatest number of species has been discovered. All those inhabiting Australia I observed to be somewhat gregarious in their habits, moving about in little troops of from six to sixteen in number. They are noisy, active, and inquisitive birds, and display many curious actions when among the branches of the trees. I believe there is little or no marked difference in the colouring of the sexes of any of the species known. The new member of the genus discovered by Mr. Swinhoe, and to which I have given the name of *erythrocnemis* from the red colouring of its knees, is a mountain bird, and is confined to the primeval forests of the Island of Formosa. But I had better give Mr. Swinhoe's own remarks on the subject.

"This species replaces in the central mountain forests the *Pomatorhinus musicus* of the lower country. It rarely, if ever, descends to the ranges below an altitude of 2000 feet, and certainly never leaves the gloom of the virgin forest for the partially wooded level of the plains. It enters upon its nidificatory duties much earlier than its congener; for in April I procured a couple of full-fledged young birds. I have never taken its nest, but had the good fortune to procure an egg which a female dropped as it fell wounded to the ground. This egg is white, and quite in character with those I possess of the other species, but larger, measuring 1.2 in. by .81. From its inaccessible haunts, I have not had many opportunities of watching the habits of this bird; but, as far as I can gather, they resemble those of its ally. Its notes are, however, harsher and less musical. Both species are entirely insectivorous, having no partiality, so far as I could ascertain, for fruit or berries."

A narrow bar across the forehead, knees, and under tail-coverts rusty red; lores and ear-coverts grey; crown of the head and back of the neck brownish grey, passing into the deep rusty chestnut of the back, shoulders, and external margins of the wing-feathers; inner margins of the wing-feathers blackish brown; tail blackish brown, with rusty margins; a streak of black, commencing at the base of the under mandible, passes downward to the chest, which is conspicuously spotted or rather blotched with black; throat and centre of the abdomen white; flanks and upper part of the thighs rusty olive-brown; bill much curved, and of a blackish grey, with pale edges; legs leaden-grey; claws brownish; irides light reddish brown.

"In the young bird the bill is much shorter and less curved, the head is browner, and the back and upper parts more rufous; but the under parts are dingier, and the colours generally not so bright as in the adult." (Swinhoe.)

The figures are of the natural size. The plant is the *Plocostemma lasianthum*.



NIPHORHAMPTUS SUPERCILIARIS, Blyth

W. G. Wood, a. 1881

Ed. Gould & Watson, p.

XIPHORHAMPHUS SUPERCILIARIS, *Blyth*.

Scimitar-bill.

Xiphirhynchus superciliaris, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 175.

Xiphorhamphus superciliaris, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 947. pl. at p. 1010.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 147.—Jerd. Ill. Ind. Orn., pl. 49.—Bonap. Consp. Gen. Av., p. 220. —Horsf. Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 238.

Pomatorhinus superciliaris, Gray and Mitch. Gen. of Birds, vol. i. p. 229, *Pomatorhinus*, sp. 7.

THAT this rare and curious bird is very intimately allied to the members of the genus *Pomatorhinus* there can, I think, be little doubt; Mr. Blyth, however, considers it to be sufficiently different to warrant its being constituted the type of a new genus, to which he has given the appellation of *Xiphorhamphus*. Specimens of this singular bird are contained in the Collections at the British Museum and the East India House, and it is from the latter that I have been favoured with the loan of examples to figure in the present work. All that is known respecting them is, that they are from Darjiling; but I suspect that low trees skirting the great forests will be the kind of situations it frequents, and that in its actions it is restless and active, hopping from branch to branch, or flying from tree to tree with a tremulous motion of the wings and outspread tail. Such at least are the habits of the members of the group to which I consider it to be allied, as observed by me in Australia: whether these conjectures be or be not confirmed, it will be interesting to ornithologists to receive an account of its habits from any person favourably situated in its native country for observing and noting them.

I believe that no marked external difference will be found in the sexes, and that the young will very closely resemble the adults.

Head dark dusky-grey, with an interrupted white superciliary stripe; upper surface rich reddish-brown; wings and tail rich silky-brown; chin grey; under surface rufous; bill blackish-brown; feet dark brown.

The figures are of the natural size. The plant is the *Clematis smilacifolia* of Dr. Wallich.



TROCHALOPTERON PHENICEUM

TROCHALOPTERON PHŒNICEUM.

Crimson-winged Trochalopteron.

Ianthocincla phænicea, Gould, Icon. Av., part i. pl. 3.

Trochalopteron phæniceum, Hodgs. Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus., p. 83.—

Gray & Mitch. Gen. of Birds, vol. i. p. 226, *Trochalopteron*, sp. 2.—Bonap. Consp. Gen. Av., tom. i.

p. 372, *Trochalopteron*, sp. 2.—Horsf. & Moore, Cat. of Birds in Mus. East-Ind. Comp., vol. i. p. 210.

—Jerd. Birds of Ind., vol. ii. p. 48.—Gray, Hand-list of Birds, part i. p. 282.

Garrulax phæniceus, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 951; vol. xiv. p. 599.—Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 97.

Crateropus puniceus, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 180.

Trochalopteron phæniceum, Blyth, Ibis, 1867, p. 5.—Beavan, Ibis, 1867, p. 436.—Bulger, Ibis, 1869, p. 164.

Tiljipha, Lepch.

Repcha, Bhot.

THIS extremely beautiful species was originally described and figured by me in the first part of my 'Icones Avium,' published in August 1837. At that time nothing whatever was known of its habits and distribution; nor have we been much enlightened on these points up to the present time (1872), since a short note by Mr. Jerdon, in his 'Birds of India,' and another by Captain Bulger, in 'The Ibis' for 1869, comprise nearly all that has been recorded respecting it.

"This richly plumaged Laughing-Thrush," says the former, "is found in the South-eastern Himalayas, and also on the Khasia Hills. It is tolerably abundant in Sikkim, and frequents the zone from 4000 to about 6000 feet. A nest and eggs, said to be of this bird, were brought to me at Darjeeling. The nest made of roots and grass; the eggs three in number, pale blue, with a few narrow, wavy, and dusky streaks."

"Of this species," remarks Captain Bulger, in his 'List of Birds obtained in Sikkim, Eastern Himalayas, between March and July 1867,' "I obtained several individuals. It was not rare at Darjeeling, though apparently not found at quite so great an elevation as the station itself. I only saw it in the forests on the upper slopes of the Little Rungeet valley; and the specimens procured by my *shikaree* were from the neighbourhood of Leebong, about 6000 feet above the sea."

Mr. Blyth mentions, in his "Commentary on Dr. Jerdon's 'Birds of India'" (Ibis, 1867, p. 5), that "Mr. Hodgson figures a beautiful compact nest" of this bird, "bound round with long lanceolate leaves"; and Captain R. C. Beavan, in his "Notes on various Indian Birds," in 'The Ibis' for 1867, remarks that he obtained one specimen at Darjeeling in 1862.

In time, so fine a bird as the *Trochalopteron phæniceum* will doubtless obtain the attention of those naturalists who are directing their researches to the birds of the great Himalayan range of mountains; and then, but not until then, shall we know more of its history.

There appears to be little or no difference in the sexes.

Crown of the head, all the upper surface, and wing-coverts rich olive-brown; feathers on the sides of the head and over the eye margined laterally with black, forming a superciliary streak; lores, ear-coverts, sides of the neck, outer edges of the primaries, of the terminal portion of the secondaries, and of the longest tertiaries dull crimson; the secondaries black, internally and partially margined at the base with light grey; under surface olive-brown, paler than the upper and having a ruddy tinge; tail and under tail-coverts dusky black, each feather tipped with reddish orange; bill black; irides reddish brown; legs livid brown.

The figures are of the natural size.



TROCHALOPTERON FORMOSUM, J. Verr.

J. Gould & H. C. Richter del et lith.

Walter. Imp.

TROCHALOPTERON FORMOSUM, *J. Verr.*

Beautiful Trochalopteron.

Trochalopteron formosum, J. Verr. Nouv. Archiv. du Mus., tom. v. p. 35.—Swinh. in Proc. Zool. Soc., 1871, p. 372.

THIS is another of the numerous ornithological discoveries made by the Père Armand David in the neighbourhood of Moupin, in the interior of China, towards Thibet. It is a larger bird than the *Trochalopteron squamatum*, is a trifle different in colour, and has somewhat longer wings; still, I think, M. Jules Verreaux has rightly placed it in the same genus. Mr. D. G. Elliot, who possesses one of the specimens procured by the Abbé David, favoured me with the loan of it for the enrichment of the present work, and I thank him for his kindness in so doing.

What is now required respecting this species is full information respecting its history, habits, and mode of life, the kind of country frequented by it, and the difference, if any, in the plumage of the sexes, in which latter respect, if we may judge from what we know of the other members of the genus, there will be none.

As M. Jules Verreaux has had opportunities of examining several specimens of this bird, I append his description of the colouring instead of giving one myself:—"General tint olivaceous rust-colour; head grey, lanceolated with black; throat and front of the neck of this last colour; a great portion of the wings and of the upper surface of the tail blood-red; abdomen and vent olivaceous."

Mr. Swinhoe remarks that two other species, also from Moupin, remain to be described.

The Plate represents the *Trochalopteron formosum*, of the size of life.



TROCHALOPTERON AFFINE, *Hodgs.*

J. Gould & W. Hart del et lith

Walter imp

TROCHALOPTERON AFFINE.

Allied Trochalopteron.

- Garrulax affinis*, Hodgson, J. A. S. B. xii. p. 950.—Blyth, J. A. S. B. xiv. p. 599.—Id., Cat. B. Mus. A. S. B. p. 97 (1869).—Gray, Cat. Mamm. &c. Nepal Coll. Hodgson, p. 83 (1846).
Pterocyclus affinis, Bonap., Consp. Gen. Av. i. p. 373.—Horsf. & Moore, Cat. B. Mus. E. I. Co. i. p. 207 (1854).—Gray, Hand-l. B. i. p. 283 (1869).
Trochalopteron affine, Jerd., B. Ind. ii. p. 45 (1863).—Id., Ibis, 1872, p. 306.
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WHY this very fine species should have received the name of *affinis* I cannot attempt to say, as it seems so very distinct. The only species which approaches close to it is *T. blythii*; and this is distinguished at a glance by the absence of the white spot behind the ear, which is so conspicuous in the present bird. Very little has been recorded of its habits; and at present we are entirely ignorant of its mode of nidification. Dr. Jerdon observes:—"This rare species of Laughing Thrush may be said in some measure to take the place in the S.E. Himalayas of the last (*T. variegatum*). It has been sent from Bootan, Sikkim, and Nepal. I saw it in thick bamboo jungle between 8000 and 9000 feet of elevation, on the road from Darjeeling to Tongloo; and I imagine that it only frequents the higher mountains."

The last-named gentleman gives the accompanying description, which I copy from his 'Birds of India.' Above rufescent olive-brown, more or less mottled with paler on the back; rump dingy greenish, and the upper tail-coverts rufous; sides of head, lores, cheeks, and ear-coverts black, occasionally this hue even suffusing the crown; shoulder of wings and wing-coverts like the back; a jet-black spot on the primary-coverts; winglet and the outer margin of the quills pearl-grey; those of the secondaries and some of the tertiaries greenish yellow; the rest of the tertiaries and tips of the secondaries slaty grey; a broad white moustachial spot, and one behind the ears also white: beneath, the chin is black; the breast rufous brown, the feathers edged laterally with grey; the belly uniform faint rufous brown; lower tail-coverts the same, but darker. Bill black; feet reddish brown; irides brown. Length $10\frac{1}{4}$ inches, wing 4, tail $4\frac{1}{2}$, bill at front nearly $\frac{7}{8}$, tarsus $1\frac{1}{2}$.

Nestling birds, of which there are examples in the British Museum, are similar in colour to the adults, the wings and tail being exactly the same as in the latter; they are, however, more uniform both above and below, without any of the greyish edgings to the feathers.

The figures in the accompanying Plate represent the species of the size of life, and are drawn from a Nepalese specimen given to me by Mr. Hodgson.



TROCHALOPTERON VARIEGATUM.

TROCHALOPTERON VARIEGATUM.

Variegated Trochalopteron.

Cinclosoma variegatum, Vigors, P. Z. S., 1831, p. 56.—Gould, Cent. Himal. B., tab. xvi.

Pterocyclus variegatus, Gray, Gen. B., i. p. 226.—Bp. Consp. i. p. 372.—Horsf. & Moore, Cat. B. Mus. E. I. Co., i. p. 207.—Gray, Hand-l. B., i. p. 283.

Crateropus variegatus, Blyth, J. A. S. B., xii. p. 950.

Garrulax variegatus, Blyth, J. A. S. B., xii. p. 950.—Id. Cat. B. Mus. A. S. B., p. 97.

Trochalopteron variegatum, Jerdon, B. Ind., i. p. 45.

I AM somewhat surprised that, of a species described and figured by me in my 'Century of Himalayan Birds' nearly forty years before, so very meagre an account should have been given as that by Dr. Jerdon in 1863; but it is only since the publication of his 'Birds of India' that we have obtained any definite information respecting the bird. The latter gentleman, in his supplementary notes to the above-mentioned book (Ibis, 1872, p. 305), writes:—"I first obtained this species in the valley of the Sutlej, and subsequently in various other parts of the N.W. Himalayas up to Kashmir, where it is common in summer in forests at from 8000 to 10,000 feet of elevation."

Respecting its nidification Capt. Cock and Capt. C. Marshall, in their joint paper on a collection of eggs made at Murree, observe:—"The nidification of this *Trochalopteron* was apparently unknown before. We found one nest, on the 15th of June, about 20 feet up a spruce fir, at the extremity of the bough. Nest deep cup-shaped, solidly built of grass-roots and twigs. The bird sits close. Eggs light greenish blue, sparingly spotted with pale purple, the same size as those of *M. castanea*."

In the lately published 'Lahore to Yarkand,' Mr. Hume figures his new *Trochalopteron simile*, a closely allied species; and he remarks, in his article on the last-named bird:—"Nothing seems to have been recorded as yet of the nidification of *T. variegatum*. They lay during the latter half of April, May, and June. The nest is a pretty compact, rather shallow cup, composed exteriorly of coarse grass in which a few dead leaves are intermingled; it has no lining, but the interior of the nest is composed of rather finer and softer grass than the exterior, and a good number of dry needle-like fir-leaves are used towards the interior. The nest is from 5 to 8 inches in diameter exteriorly, and the cavity from 3 to 3.5 in diameter, and about 2 deep. It is usually placed in some low, densely foliated branch of a tree, at, say, from 3 to 8 feet from the ground; but I recently obtained one placed in a thick tuft of grass growing at the roots of a young deodar, not above 6 inches from the ground. They lay four or five eggs. The first egg that I obtained of this species, sent me by Mr. G. C. Buck, C.S., and taken by himself, was a nearly perfect, rather long oval, and precisely the same type of egg as those of *T. erythrocephalum* and *T. cachinnans*, but considerably smaller than the former. In fact, had Mr. Buck not taken the egg himself, I could scarcely have believed that it belonged to this species. The ground-colour is pale, rather dingy greenish blue, and it is blotched, spotted, and speckled—almost exclusively at the larger end, and even there not very thickly—with reddish brown. The egg appeared to have but little gloss.

"Other eggs subsequently obtained by myself were very similar, but slightly larger and rather more thickly and boldly blotched, the majority of the markings being still at the large end.

"The eggs vary from 1.07 to 1.15 inch in length, and from 0.76 to 0.82 in breadth."

The following description is from a Nepalese bird. I have not at present a sufficiently large series to decide on the specific value of *T. simile* and *T. Humei*, which, though Dr. Jerdon fancies they may not be distinct species, seem to me to be probably well-marked representative species.

Above olivaceous brown, with a slight tinge of greenish; forehead washed with dull ochraceous; lores and feathers round the eye extending on to the ear-coverts blackish; sides of face ochraceous, shading into buffy white on the sides of the neck; throat black; chest grey, slightly washed with ochraceous; rest of under surface light ochraceous, deepening into tawny rufous on the thighs and under tail-coverts; flanks shaded with olivaceous grey; under wing-coverts dull rufous ochre; upper wing-coverts olivaceous brown, the greater series washed with rufous, the outer ones black, forming a conspicuous wing-patch; quills blackish, externally grey, the primaries washed with orange on the outer web, all tipped with white at the extremity of the latter; tail greyish, tipped with white, the outer feathers greenish yellow on the outer web, the two centre feathers black for about half their length, this colour disappearing gradually towards the base of the outermost and absent on the two external rectrices.

The sexes are of about the same dimensions, and are represented in the Plate of the size of life.



TROCHALOPTERON CINERACEUM, *Godwin-Austen.*

TROCHALOPTERON CINERACEUM, *Godwin-Austen.*

Cinereous Trochalopteron.

Trochalopteron cineraceum, Godwin-Austen, P. Z. S., 1874, p. 45, pl. xi.

IN the absence of any information respecting this bird, either with regard to its actions or its habitat, I have really nothing to say respecting it beyond drawing attention to its varied markings and generally pleasing contour. When we shall come to an end of these scrub-loving birds, such as *Trochalopteron*, *Garrulax*, and others, no one can tell; for they increase upon us yearly, and to monograph them would not only be a task of much labour, but would occupy a large volume; and they will do so, if the author of the 'Birds of Asia' is spared to complete his work. Every new district and almost every additional thousand feet of elevation afford situations for a new species, each of which has its own peculiar locality.

The habitat of the present bird is the Nágá Hills, where it represents the *Trochalopteron variegatum* of the Himalayas. In size and colouring they are very much alike; but, as Major Godwin-Austen observes, its "yellow bill and much smaller and weaker legs and feet make it a very marked form of this genus."

I copy the following description from the last-mentioned gentleman:—

"Above pale ashy olivaceous, greyer on the tail, which is black for 0·7" at the terminal end, then tipped broadly white. Wing: quills pale black, edged hoary grey; the secondaries tipped black, and their square tips edged white, in keeping with the tail. Primary coverts near the bastard wing black, forming a wing-spot. Top of head black, extending in a narrow line down back of neck; lores and a broad band over eyes and ear-coverts dingy white; a few pure white feathers below eyes merging into ear-coverts; a narrow black line extends from posterior corner of eye over the ear-coverts, and a moustachial streak of the same colour merges into indistinct spots. Chin white, with a few hairy black streaks; breast and underparts sullied white, with a slight vinous tinge on the former, and a dash of ruddy rufous on side of neck; ochraceous on belly and under tail-coverts.

"Bill pale yellow, shaded dark above; legs fleshy brown; irides pale ruddy ochre.

"Length 8·75 inches, wing 3·22, tail 4, tarsus 1·25, bill at front 0·68."

The figures are life-size, and are taken from the typical example.



TROCHALOPTERON VIRGATUM, *Godwin-Austen.*

TROCHALOPTERON VIRGATUM, *Godwin-Austen.*

White-eyebrowed Trochalopteron.

Trochalopteron virgatum, Godwin-Austen, P. Z. S., 1874, p. 46.

HERE, again, ornithology is indebted to Major Godwin-Austen for presenting to our notice this new species, which is marked by sufficient differences to admit of no doubt as to its specific distinctness. It belongs to the plain-coloured section of the genus, and does not exhibit those striking contrasts of colour which are to be noticed in *Trochalopteron variegatum*, *T. erythrocephalum*, and their allies. I cannot help reiterating my wish that we may soon come to an end of these "Laughing-Thrushes," as Dr. Jerdon calls them; but at present there seems no likelihood of it, for species are discovered faster than I can figure them in my yearly issue of the present work. With their discovery unfortunately we get little or no information respecting their habits; and all that we know respecting the present bird is the following observation by its original discoverer:—"I obtained a single specimen near the village of Rázámi, Nágá Hills, under the Kopamedza ridge, 5000 feet."

The following is the description given by Major Godwin-Austen:—

"Head dark rufous brown, olivaceous on back, paler and greyer on rump; tail olive-brown, with a slight tinge of rusty on basal half, finely and indistinctly barred; wing, first three quills grey on outer web, the rest and secondaries pale ferruginous, merging into rich chestnut at their base; coverts of the latter colour, narrowly tipped ochre; feathers of winglet conspicuously white-centred, and lores chestnut, a white supercilium; ear-coverts pale rusty; chin and throat rich dark chestnut; breast and abdomen bright ochraceous; under tail-coverts darker brown. As viewed from below, the tail is grey-brown, each feather faintly tipped with white.

"All the feathers of the head, upper back, flanks, and breast are centred white or pale ochre, and those of the head and neck are rigid.

"Bill black; legs pinky grey; irides pale brown."

The single figure in the Plate is taken from the type specimen kindly lent to me by Major Godwin-Austen, and represents the bird of the natural size.



TROCHALOPTERON BLYTHII, *J. Verr.*

TROCHALOPTERON BLYTHII.

Blyth's Laughing Thrush.

Trochalopteron Blythii, J. Verr. N. Arch. Mus. vi. Bull. p. 37, vii. p. 45.

THAT the vast extent of country which we know under the names of India, China, and Malaisia is not altogether covered with tropical forests is clearly evidenced by the number of brush- and scrub-loving birds which form a conspicuous feature of the ornithology of those regions. The genera *Trochalopteron*, *Garrulax*, &c. are all birds which inhabit these scrubby districts; and wherever they are found, there is no family which is so thickly represented as the Timeliidæ. All these birds are doubtless more or less insect-feeders, if not entirely so; how vast, then, must be the swarm of insect life in those countries, and how wonderfully is the balance of nature preserved!

The present species is the Chinese representative of the *T. affinis* of the Himalayas, and was named by the late M. Jules Verreaux after Mr. Edward Blyth, one of the first zoologists of his time and the founder of the study of that science in India, where at the present time it numbers many votaries worthy to follow the steps of so distinguished a pioneer.

I regret that at present nothing has been recorded respecting the habits of this species, but they doubtless assimilate to those of its Himalayan congener. The following is a translation of the original description:—

“Head black, the forehead shaded with dark grey; hinder part of neck brownish rufous, becoming paler on the mantle, where the feathers are bordered with olivaceous in the form of scales, which disappear on the rump, the plumes being here very thick and lax. Upper tail-coverts uniform rufous maroon; the wings, which are very short, having the quills of a fine golden olive, the primaries externally bordered with greyish white, while the innermost are of a dark leaden grey; a black spot, surmounted by a grey one, covers the base of the primaries, the wing-coverts being coloured like the back; the tail, which is long and ample, is of the same golden olive as the wings for more than two thirds of its length, and terminated by the same leaden grey as the wings; the shafts of all these feathers are black; a large white moustache covers the cheeks, and an ill-defined greyish spot is observable on the sides of the neck, immediately behind the ear-coverts. The whole of the fore neck, breast, and belly is clear reddish, strongly shaded with greyish—that is to say, each feather is more or less bordered with this latter colour; the abdomen is more uniform and becomes more and more of a reddish colour down to the under tail-coverts; iris yellowish chestnut; tarsi brown; beak black.

“The female in no way differs from the male, not even in size, and is similarly coloured. The three examples which have served as the types of our description come from Western Szetchuen, where they were procured in 1869.

“Although at first sight this bird appears to have great affinity with the *Trochalopteron affinis* of Hodgson, it is distinguished by its larger size, but still more by its having the head blacker, the sides of the neck not so white, and especially by the less rufous coloration of the underparts of the body, which in this latter species are bordered with a more whitish tint, and lastly by the scaly part of the back, which in our bird is sensibly more marked than in *T. affinis*.

“As regards the history of the species, Père David, who has discovered it in Western China, informs us that it is also found, and more abundantly, further to the west, in the wooded mountains of Moupin and Kokonoor. It is more a frequenter of the elevated forests than *T. Elliotti*, which in habits and manners it otherwise almost exactly resembles; its note is softer and sweeter and has a plaintive tone, which is quite touching when heard for the first time.”

The figures in the Plate represent the species of the size of life, and are drawn from an example lent to me by Mr. Swinhoe.



TROCHALOPTERON ELLIOTI, J. Verr.

TROCHALOPTERON ELLIOTII, J. Verr.

Elliot's Trochalopteron.

Trochalopteron Elliotii, J. Verr. Nouv. Archiv. du Mus., tom. vi., Bull. p. 36 & tom. vii., Bull. p. 44.—David, ibid., tom. vii., Bull. p. 6.

THE *Trochalopteron Ellioti*, being a showy and interesting species, is well worthy of bearing the name of the gentleman to whom it has been dedicated. Its native country is Northern China and the adjacent provinces of Thibet, whence examples were brought to France, with other novelties from the same localities, by the Abbé Armand David, from whose brief but interesting notes the reader will learn that it is a very familiar bird, and commonly known to the inhabitants of its native regions. As neither myself nor any other naturalist except M. David knows any thing respecting its habits and economy, I am sure I shall be excused for transcribing what he has published on the subject, through the medium of my friend M. Jules Verreaux, in the Bulletin of the seventh volume of the 'Nouvelles Archives du Muséum d'Histoire Naturelle de Paris.'

Every author being naturally anxious to make known new discoveries in his own branch of science as early as possible, I hasten to give a figure of this beautiful species in the 'Birds of Asia,' feeling assured that the accompanying illustration will be looked upon with pleasure by every one. It will there be seen that its fine but harmonious colouring must show conspicuously during flight, and add considerably to the interest of the scenery of the surrounding brushes, as well as to that of the gardens of the inhabitants of Moupin, who appear to regard it with favour, and to exempt it from molestation when it familiarly intrudes itself into their dwellings.

The following is M. Verreaux's description and account of this species.

"The general colour is of a greyish olive-brown, greyer upon the head; a great part of the feathers of the head, neck, and breast are more or less terminated with silvery white; numerous brown spots centred with white, though scarcely visible, upon the neck and back; the long and soft rump-feathers are uniform in colour with the body; the wing-feathers are black, with a large reddish-brown spot in the centre, and are all bordered with pale greyish blue, those nearest the body more strongly tinted with the same of a somewhat darker tint; the tail is reddish brown above, with the extremity of a pure white, less extensive on the middle feathers; their under surface is black, and the white tipping is more apparent; a little black spot covers the lores and extends a short distance under the eye; a large red patch covers the abdomen, thighs, and under tail-coverts; bill black; irides pale yellow; tarsi of a light reddish brown; nails darker.

"The female differs in being somewhat less bright and smaller in size—a fact we have been able to determine by an examination of five males and the same number of females received by the Museum from the western part of Sse-tchuan, where M. Armand David found the bird to be very abundant, as well as in the mountains of Moupin and Eastern Kokonoor. It is met with in small bands very generally distributed, except in the plains, but less frequently in large forests than on the edges of woods, roads, and near habitations. It is one of the most common birds of these regions; and M. David has often seen them in winter enter inhabited houses, and steal maize, either in ear or flour, even from the stoves. The people do not molest them, any more than they do other small birds, preferring to forgive their little thefts for the sake of the pleasure afforded by their continued soft and melancholy song and their lively and elegant movements. It is a sedentary species, and builds among the bushes a cup-shaped nest of grass, in which are deposited five or six bluish eggs. Like the members of the genera *Garrulax* and *Pterorhinus*, it never takes extensive flights, but flits rapidly from bush to bush in bands more or less numerous and noisy, and which are commonly seen hopping on the ground in search of food.

"We have given the name of *Elliotii* to this beautiful species, as an acknowledgment of the efforts made every day by our clever colleague and friend, Mr. D. G. Elliot, in the interest of science. The numerous works he has already published, and those in the course of publication, are proofs of the immense sacrifices he has made for the development of natural history."

The figures are of the natural size.



TROCHALOPTERON MELANOSTIGMA, *Blyth.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.

TROCHALOPTERON MELANOSTIGMA.

Tickell's Laughing Thrush.

Trochalopteron melanostigma, Blyth, Journ. As. Soc. Beng. xxiv. p. 268 (1855).—Blyth & Walden, Birds of Burmah, p. 108, no. 316 (1875).—Wardlaw Ramsay, Ibis, 1877, p. 464.—Hume & Davison, Stray Feathers, 1878, vol. i. p. 291.—Hume, Stray Feathers, 1879, p. 97.
Pterocychus melanostigmus, Gray, Hand-list of Birds, i. p. 283. no. 4192 (1869).

THIS beautiful species of Laughing Thrush was discovered by the late Colonel Tickell in the mountains of Tenasserim, where he found it up to the vast wall-like crags of Mouleyit at a height of 7500 feet. It has also been obtained by Mr. Davison in the same country; and Captain Wardlaw Ramsay met with it in Karen-nee at a height of 5000 feet, where he found it very abundant. He writes:—"A native bird-catcher snared more than a dozen for me one day in a few hours, besides specimens of *Turdus sibiricus*, *T. pallidus*, *Oreocincla mollissima*, and *Sibia picaoides*, using as his bait the larvæ of some insect. In some specimens the ferruginous-chestnut colour of the throat and breast is continued over the whole of the lower surface."

Mr. Davison's note on the species in Tenasserim is as follows:—

"This species, except perhaps in the nesting-season, is always found in small parties of six or eight. They feed chiefly on the ground, keeping much in the brushwood, rarely flying into trees unless pressed by dogs; neither a very noisy nor very silent bird, uttering from time to time its fine whistling call, which greatly resembles that of the species (*T. erythrocephalum*) that we get about Simla. By no means a shy bird, and rather common on the hills from 3000 feet and upwards (not seen in the plains), and especially so about Mooleyit. It keeps to the forest or its outskirts as a rule; but it sometimes at Mooleyit ventures into the detached clumps of briars and scrub that stud the grassy slopes near the summit. All the specimens I examined had fed exclusively on insects."

The present species is very closely allied to *T. ruficapillum*, like which species it has the cap chestnut as well as the throat; but it differs from that bird in the following characters—the black primary-coverts (which form a wing-patch), the black chin, the uniform hind neck and mantle—as well as in having the ear-coverts ashy, streaked with black and slightly washed with rufous.

The following excellent description has been given in 'Stray Feathers' by Mr. Hume:—

"*Males*. Length 10·4 to 10·62; expanse 12·0 to 13·0; tail from vent 4·4 to 4·5; wing 4·0 to 4·2; tarsus 1·5 to 1·6; bill from gape 1·2; weight 2·75 to 3·25 oz.

"*Females*. Length 9·85 to 10·7; expanse 11·62; tail from vent 4·0 to 4·5; wing 3·8 to 4·5; tarsus 1·45 to 1·65; bill from gape 1·2; weight 2·75 oz.

"Legs, feet, and claws very pale brown to reddish brown; bill black; irides brown or hazel-nut brown.

"The lores and point of the forehead black; the rest of the forehead, crown, occiput, and a sort of tail to the occiput descending onto the nape, bright ferruginous chestnut to deep ferruginous, almost maroon chestnut; cheeks, ear-coverts, sides of the occiput, and upper part of sides of the nape delicate silvery grey, regularly striated longitudinally with dusky; feathers at the base of the lower mandible and chin black, the former sometimes slightly streaked silvery; the black of the chin and of the feathers on the base of the lower mandible shading into an intense ferruginous or ferruginous-red on the throat, whence this colour extends, somewhat diluted, over the rest of the front of the neck. Most generally only a trace of this extends onto the breast, but the birds are very variable in this respect, and in some specimens this ferruginous, though less ruddy and less intense in character, spreads over the whole of the upper breast, the middle part of the lower breast, and upper abdomen, and in one specimen before me right down to the vent. Normally, however, the breast, abdomen, sides, flanks, vent, lower tail-coverts, tibial plumes are all a clear olive-brown or olive, the sides a little shaded with grey, and the middle of the breast and its sides a little diffused with a paler, duller, and less ferruginous tinge of the colour of the lower neck. Of course, where the ruddy or ferruginous tinge is more extended, the amount of the olive is proportionately contracted. The sides of the neck below the silvery striated face-patch, the back of the neck, and upper back are olive, sometimes greener, sometimes yellower, and sometimes again browner or greyer; the rest of the back, scapulars, rump, and upper tail-coverts are usually the same colour, but darker in shade and less pure in tint. The primary greater coverts are velvet-black, forming a conspicuous patch on the wing; the earlier secondary greater coverts are red, varying from bright ferruginous chestnut to an almost orange ferruginous; the rest of the coverts are olive; the quills are hair-brown; their outer webs and the greater part of the visible portion of both webs of the tertiaries bright golden olive, in some,

however, with a decided greenish tinge, and the colour usually brightest and most intense towards the bases of the primaries; the tips of the tertiaries and later secondaries more or less untouched with this colour, giving the effect of rather irregular ill-defined black or blackish tippings. The tail is dark brown, margined everywhere, and both webs of the central and the outer webs of the lateral feathers suffused with a somewhat duller shade of the wing-colour, varying as this does from bright golden olive to dull greenish olive-yellow. The wing-lining varies: when the red descends far on the breast, it is chiefly ruddy olive-brown; but in others, which show less red on the breast and abdomen, it is a pure olive or olive-brown, some few of the longest feathers being like the lower surface of the quills, a dark glossy, somewhat blackish hair-brown; the edges of the wing are white, yellowish, or ruddy in patches, varying a good deal in different specimens."

The figures in the Plate represent a male and female of about the size of life; they have been drawn from a pair of birds kindly lent me by Captain Wardlaw Ramsay.

[R. B. S.]



LANTHOCINCLA OCELLATA.

Thould & H. Richter, del et lith.

Müller, Imp.

IANTHOCINCLA OCELLATA.

Ocellated Ianthocincla.

Cinclosoma ocellatum, Vig. in Proc. of Comm. of Sci. and Corr. of Zool. Soc., part i. p. 55.—Gould, Cent. of Birds, pl. xv.

Garrulax ocellatus, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 951, vol. xiv. p. 599.—Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 96.—Gray and Mitch. Gen. of Birds, vol. i. p. 255, *Garrulax*, sp.—Gray, Cat. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 82.—Horsf. and Moore, Cat. of Birds in Mus. East-Ind. Comp., vol. i. p. 205.—Jerd. Birds of India, vol. ii. part i. p. 41.—Id. Ibis, 1872, p. 304.

Crateropus ocellatus, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 179.

Ianthocincla ocellata, Bonap. Consp. Gen. Av., tom. i. p. 371, *Ianthocincla*, sp. 1.

Lho-karreumpho of the Lepchas (Jerdon).

THE present species is figured in my 'Century of Birds from the Himalaya Mountains,' and is here repeated to show the slight difference which exists between it and the Chinese *Ianthocincla Artemisiæ*. M. Verreaux states, on the authority of the Abbé Armand David, that the latter differs from the former in having the spots with which it is ornamented yellowish, and not white: but on reference to my fine specimens I find these markings are not constant as regards colour; for in some they are white, in others they are buff. Neither is the colouring of the bill, which is also pointed out as a distinguishing character, to be depended upon; still it is darker in the Chinese bird than in its western ally. They are clearly representatives of each other in the respective countries they inhabit.

The late Mr. Jerdon states that he had "seen no record of this handsome bird having been procured elsewhere than in Nepaul and Sikkim. About Darjeeling it is not found below 8000 feet, and is most abundant between that elevation and 10,000 feet." He "saw it between Darjeeling and Tongloo in large flocks, with a fine loud clear call, which, when began by one, was immediately answered on all sides. It was feeding on various fruits and seeds.

"Captain Bulger mentions the fine clear and mellow notes of this bird, and says they sounded to him like 'awāy, awāy, aweē,' whistled in rapid succession. The birds not only (he says) answered one another, but they replied readily to the imitation of this call."

The following is Dr. Jerdon's description of this bird:—"Forehead, sides of the head, and body above reddish brown; top of the head and the front of the neck blackish brown; nape, back, wings, and upper tail-coverts marked with white ocelli, black anteriorly; quills and lateral tail-feathers greenish dusky, with white tips; outer webs of the middle quills grey, showing a grey alar band; lower wing-coverts variegated with red, black, and white; beneath, the breast whitish rufous, with black bands; abdomen pale rufous; bill yellowish, dusky on the ridge and tip; legs dull yellow; irides yellow brown."

There appears to be little or no difference in the colouring of the sexes.

The figures are of the size of life.



LANTHOCINCLA ARTEMISIAE.

W. Gould & H. C. Richter, del. & lith.

Walter, Imp.

IANTHOCINCLA ARTEMISIÆ.

Allied Ianthocincla.

Cinclosoma Artemisiæ, David, Ann. & Mag. Nat. Hist., 1871, 4th ser. vol. vii. p. 256.—Swinh., Proc. of Zool. Soc. 1871, p. 372.

Yantocincla Arthemisiæ, David, Nouv. Archiv. du Mus., tom. vii., Bull. p. 6.

Yanthocincla Arthemisiæ, David, ib. p. 14.

THE Abbé Armand David has the honour of bringing this novelty to the knowledge of scientific ornithologists. It is most closely allied to the *Ianthocincla ocellata*; but as the difference in their colouring, though slight, is permanent, they, like many other nearly allied species, have been distinguished by separate specific designations; in what these differences consist, a glance at the figures of the two species in the respective places will at once render apparent. How these slight differences arise we know not. The countries inhabited by the two birds are divided by a vast range of mountains, which neither of them presumes to cross, but each strictly confines itself to its own native districts.

Mr. Elliot was so good as to favour me with the loan of the fine specimens from which the figures in the accompanying Plate were taken, an act of kindness for which, as well as for many others, my thanks are here tendered to him. That there will be little, if any, difference in the habits and economy of the *Ianthocincla Artemisiæ* and *I. ocellata* I consider not improbable; that they feed on insects, snails, and mollusks of the same genera, if not of the same species, seems likely; and that their thick clothing and the lax and silky character of their feathers indicate that they live in thick and humid brushes will be plain to every one.

The men who make such interesting discoveries as the *I. Artemisiæ* are the invaluable pioneers of scientific knowledge, to which I lend my aid by giving such representations of them as are contained in the 'Birds of Asia.' It will be for future generations to make us acquainted with their history, their actions, the nature of their food, their mode of nidification, the number and colour of their eggs, &c.; but this cannot be done until the exclusiveness of the Chinese is more completely swept away, and the various tribes not under our sway have become sufficiently enlightened to enable the scientific explorer to traverse those distant regions with safety. At present the little we know respecting the *I. Artemisiæ* is contained in the following brief note from the pen of the Abbé David, published in the Bulletin of the 'Nouvelles Archives du Muséum d'Histoire Naturelle de Paris' above quoted.

"This species, which closely resembles the *Yanthocincla ocellata*, is distinguished at all ages by its *darker bill*, by the spots on the back, which are *yellowish* and not white, and by the blackness of the head, throat, and round the eyes, which is very marked."

The following is the Abbé's description of the bird, which I give in his own words, as it was probably taken from a recently killed example:—

"Head and a broad patch on the throat black, leaving the chin, lores, and under the eye buff-coloured, and a partial half-eyebrow and a spot in rear of the ear-coverts whitish. Neck and underparts buff, a little rufous near the edge of the black gorget; back of the neck, breast, and flanks banded on each feather near its tip with an undulating black bar. Scapulars and back as in *I. ocellata*, but with broader and yellower tip-spots, and with much narrower black bars. Wings and tail as in its ally, but with the rufous more mixed with yellow. Length 12·75 inches; wing 5, tail 6·5. Bill variable in length; iris yellow. *Habitat* Moupin, Western Szechuen."

The Plate represents the birds of the size of life.



LANTHOCINCLA LUNULATA, J. Verr.

J. Gould & H.C. Richter, del. & lith.

W. L. H. G.

IANTHOCINCLA LUNULATA, *J. Verr.*

Lunulated Ianthocincla.

Ianthocincla lunulata, J. Verr. Nouv. Archiv. du Mus., tom. vi., Bulletin, p. 36, pl. 33. fig. 2, et tom. vii., Bull. p. 41.

Yantocincla lunulata, David, ib., tom. vii., Bull. p. 6.

ONE of the most pleasing traits connected with *Ianthocincla* and the allied genera is the great diversity which is displayed in their colouring and markings. Hitherto no species had been found exhibiting characters similar to those which exist in the present one; hence its acquisition must have given great pleasure to its discoverer when the first specimen fell to his gun; nor could the gratification of being its first describer have been less pleasing to M. Jules Verreaux, the veteran and excellent ornithologist of Paris.

The knowledge of the existence of this fine species affords additional evidence of the richness of the Chinese avifauna; and, judging from what we have seen during the short period that great country has been thrown open to travellers and naturalists, a still richer harvest in the field of natural history may be reasonably expected to be gleaned therein. That the Abbé David and our own excellent Consul, Mr. Swinhoe, may long be spared and blessed with health and energy for the prosecution of their researches, must be the ardent wish of every lover of natural science.

The following is M. Verreaux's description of the *Ianthocincla lunulata*, and the notes of the habits of the bird furnished him by M. Armand David:—

“Head and upper part of the neck dark olive-brown; the remainder of the upper surface of a light olive, each feather having at the tip a black crescent bordered with yellowish white, not so conspicuous on the rump, where the feathers are long and very tufted. Wings black, the primaries edged with light grey, the secondaries with olive, and both tipped with white; the lateral tail-feathers are light grey on the outer web from the base, then black, and white at their extremities, less extensive upon the middle feathers. Face pure white, mixed with light brown on the parotic region. Throat, front of the neck, and chest of the same light brown, relieved on the latter by white edges; abdomen also light brown; flanks, vent, and under tail-coverts olive-brown, with transverse bands of black. Bill light brown, yellowish at the base of the lower mandible, irides yellow.

“The male above described was killed in western Sse-tchuan on the 23rd of February, 1869, by M. Armand David, who tells us that he subsequently found this species abundant and sedentary in the woods of Moupin and eastern Kokonoor. According to our explorer, this bird resembles closely *Ianthocincla Arthemisiæ* and *J. maxima* in its voice and habits; but it does not remain so much secluded in the centre of the forests in winter, and descends lower into the valleys. It is also a sedentary species, and lives upon the berries of the bay and insects, which it seeks by scratching up the dry leaves on the ground in the same way as fowls and the other *Ianthocinclas*. Although naturally wild and timid in the woods, it may easily be tamed and brought up in a cage; but although its voice is loud and beautiful, its song is too short and monotonous to render it desirable as a cage-bird. M. Armand David says there is a very slight difference in the sexes, the female merely being a trifle lighter in colour.”

The figures are of the natural size.



IANTHOCINCLA AUSTENI.

J. Gould & H. C. Richter, del et lith.

Walter, Imp.

IANTHOCINCLA AUSTENI.

Austen's Ianthocincla.

Trochalopteron Austeni, Jerd. in Ibis, 1872, p. 304.—Aust. in Journ. Asiat. Soc. Beng., vol. xxxix. part ii. p. 105.

SCIENCE is indebted to Major Godwin-Austen for the discovery of this interesting species, which adds one more to the numerous group of birds termed by Jerdon "Laughing Thrushes," and which are divided into several sections, under the generic terms of *Cinclosoma*, *Garrulax*, *Ianthocincla*, *Trochalopteron*, &c., the characters of which have never been definitely defined; and hence it is most difficult to determine to which of them a new species, when discovered, should be assigned. The present bird is certainly more nearly allied to the genus *Ianthocincla* than to any other; and it is under that generic term, therefore, that I have figured it. That all these birds must play an important part in the economy of nature in the countries to which they respectively belong is very evident from the great numbers of the species and the wide extent of their range over India, Nepal, China, the Philippines, Java, &c. As our knowledge of these birds becomes more extensive, accompanied probably by the acquisition of many additional species, the entire group will require a more careful revision than it has yet received; and we shall then be able to ascertain whether or not they should all be kept in the genus *Garrulax* or under either of the other terms above mentioned; at present the divisions and the synonymy of the entire group are in a state of the greatest confusion.

The following is Major Godwin-Austen's account of this species as given by him in the 'Journal of the Asiatic Society of Bengal' above quoted:—

"This bird was pointed out to me as new by Dr. Jerdon, to whom I handed it over to describe; he has done so in 'The Ibis.' To complete here the account of the bird, I give a description as well. Above rufous brown, greenish upon the rump; feathers of the tail and neck pale-shafted, most markedly on the side of neck behind the ear-coverts; under the throat pale brown, gradually speckled on the lower breast with bars of whitish, each feather tipped with dark brown. The white bars increase in breadth towards the belly, which is nearly all dusky white. Thigh-coverts olivaceous; primaries black-grey, outer web rich rufous brown; wing-coverts same colour, finely tipped white; secondaries also tipped white; first four primaries grey on outer web, gradually decreasing. Tail with two centre tail-feathers rich rufous; four outer terminating in dark grey, tipped with white narrowly. Legs pale pinkish grey, strong in form. Bill black, short, and well notched. Irides umber.

"Length $9\frac{1}{2}$ inches, extent $10\frac{1}{2}$, wing 4, tail $4\frac{1}{2}$, tarsus $1\frac{1}{2}$, spread of foot $\frac{3}{4}$, bill at front .63. Found in underwood on Hengdan Peak, the principal Trigonometrical Station of Observation at the head of the Jhiri river, at a height of 7000 feet; generally seen in pairs, uttering a harsh croaking call, and answering each other from time to time."

And the following is Dr. Jerdon's original description in 'The Ibis,' also above referred to:—

"Head, nape, and sides of the neck rich rusty brown, each feather with a paler shaft; back and uropygium olive-brown, tinged with the colouring of the head, but devoid of pale shafts; middle pair of rectrices and outer edges of quills above deep rich ferruginous; remaining rectrices dark brown, tipped with pure white, the central pairs more or less edged with the colour of the middle pair. General colour of the under surface of the body similar to that of the head, but each feather terminated by an albescent border and a penultimate brown band, most prominent on the breast; ventral feathers almost entirely albescent, with narrow brown terminal edgings; under tail- and wing-coverts tawny ferruginous, the former faintly tipped with albescent; major wing-coverts and some of the tertiaries with terminal albescent drops; bill black; legs brown. Wing $3\frac{7}{8}$, tail $4\frac{7}{8}$, tarsus $1\frac{1}{8}$, bill from gape $\frac{7}{16}$. The pale central streaking of the head- and neck-plumage varies in degree in each individual."

The sexes in all probability will not be found to differ in colour.

The Plate represents the bird in two positions, of the size of life.



GARRULAX DELESSERTI, Jerd

J. Gould & H.C. Richter, del. et lith.

Walter Ingham

GARRULAX DELESSERTI, *Jerd.*

Delessert's Garrulax.

Crateropus Delesserti, Jerd. Madras Journ. of Lit. and Sci., vol. x. p. 256.—Id. Ind. Orn., pl. xiii.

——— *griseiceps*, Deless. Rev. Zool. 1840, p. 101.—Id. Souv. d'un Voy. dans l'Inde, tom. i. pt. ii. p. 29.

Garrulax Delesserti, Jerd. Birds of India, vol. ii. part i. p. 37.

LIKE the *Garrulax gularis*, this species is rarely to be found in the museums of Europe—a circumstance somewhat surprising, since it inhabits a country which has long been known to Europeans and from which numerous collections have from time to time been sent. It appears to evince a preference for hills of moderate elevation to living in the neighbouring dense forests, and, like the *Pomatorhini*, moves about in small troops, composed probably of the brood of the year and their parents. I believe that it is more shy and retiring than the members of the genus *Pomatorhinus*, whose habit it is to show themselves in the more open glades of the forest, and to attract attention by their peculiar actions. Its food doubtless consists of worms, insects, and probably of animals of a higher order. Neither Mr. Jerdon nor Viscount Walden, who shot it on the Coonoor Ghaut of the Neilgherries, have given us any account of its habits.

In his 'Birds of India' Mr. Jerdon says:—"This is a somewhat rare bird. I first saw it in the possession of M. Delessert, who got it in the slopes of the Neilgherries; and I afterwards procured it in the same locality at an elevation of about 3000 feet. I also saw it several times in the Wynaad, associating in large flocks, wandering about the underwood and bamboos, and occasionally uttering a chorus of peculiar, but clear, chattering notes."

I suspect that the sexes are very similar in plumage; but even this has not been stated; and it is much to be regretted that so little has been recorded respecting the bird, its habits, and economy.

Head and nape dark greyish brown, inclining to black; upper surface generally dark reddish brown, becoming brighter or more rufous on the rump and upper tail-coverts, and darker on the primaries and secondaries; tail very dark or blackish brown; chin, throat, neck, and breast white, gradually blending into the grey of the upper part of the abdomen and flanks; lower part of the abdomen, vent, thighs, and under tail-coverts deep rusty red; upper mandible dark brown; under mandible yellow; irides dull red; legs flesh-colour.

The figures are of the natural size; the plant is the *Sphærostema propinquum*.



GARRULAX CULARIS.

GARRULAX GULARIS.

Yellow-throated Garrulax,

Ianthocincla gularis, McClell. Proc. Zool. Soc., part vii. (1839) p. 159.

Garrulax gularis, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 949, vol. xiv. p. 598.—Id. Cat. of Birds in Mus. Asiat. Soc. Calcutta, App. No. 6, p. 337.—Horsf. and Moore, Cat. of Birds in Mus. East. Ind. Comp., vol. i. p. 203.

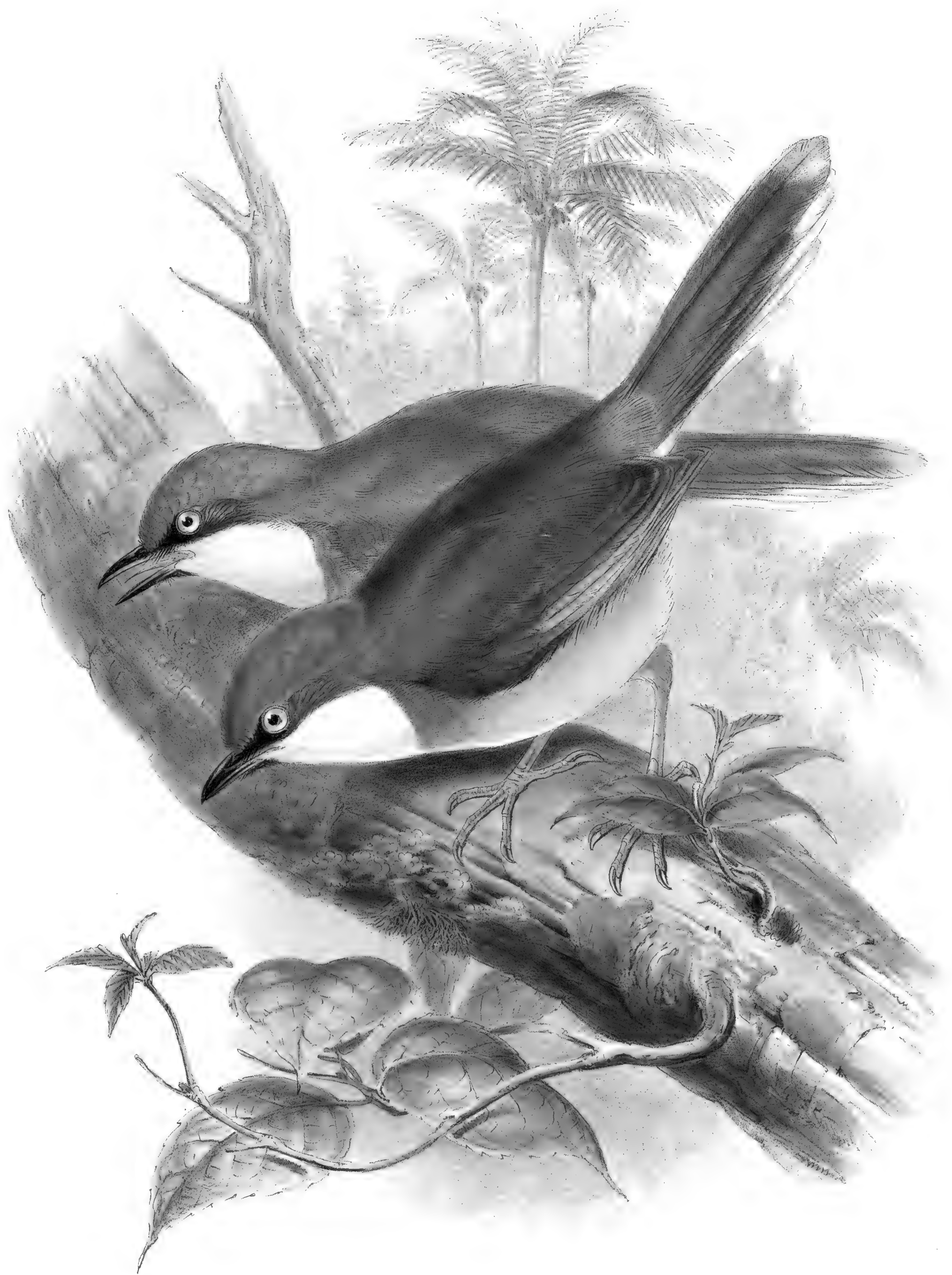
Crateropus gularis, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 179.

THE first notice of this rare species of *Garrulax* is recorded in the 'Proceedings of the Zoological Society of London' for the year 1839, when the late Dr. Horsfield communicated a list of the Mammalia and Birds collected in Assam by John McClelland, Esq., Assistant Surgeon in the East India Company's service, and one of the members of a deputation which had been sent into that country for the purpose of investigating the nature of the Tea-plant. On the return of the deputation to Calcutta, says Dr. Horsfield, Mr. McClelland transmitted his collection of Mammalia and Birds, accompanied by a descriptive catalogue and drawings of many subjects, to England, where they arrived safely, and are now, with few exceptions, prepared and exhibited in the India Museum. The specimen of the present bird contained therein and one in my own collection, kindly presented to me by Mr. Jerdon, are probably the only ones in Europe. It is not in the National collection, neither is it included in Mr. Blyth's 'Catalogue of the Birds in the Museum of the Asiatic Society at Calcutta.' Although nearly allied to *Garrulax Delesserti*, *G. pæcilorhynchus*, and *G. cærulatus*, it offers a striking contrast to those birds in the bright yellow colour of the throat and chest.

Whether there be or be not any difference in the colouring of the sexes, the paucity of information we possess respecting the species, and the scanty nature of the materials at our command, do not enable me to say. In all probability the male and female will be very much alike in external appearance, as we know is the case with some other species of the genus.

Crown of the head, nape, sides and back of the neck, and shoulders dark slate-grey; lores black; chin and throat bright yellow, separated from the grey of the sides of the head and neck by an obscure stripe of black; back and wings deep reddish brown, becoming paler or more rufous on the upper tail-coverts; central tail-feathers brownish black, lateral ones rufous; sides of the chest and upper part of the flanks grey; centre of the abdomen buffy yellow, gradually blending with the rufous of the lower part of the flanks, abdomen, vent, thighs, and under tail-coverts; bill black; legs and feet yellow.

The figures are of the size of life. The plant is the *Tamarindus officinalis*.



GARRULAX RUFICEPS, *Could.*

J. Gould and H. C. Richter, del. et lith.

Waller & Cohn, imp.

GARRULAX RUFICEPS, *Gould.*

Red-crowned Garrulax.

Garrulax ruficeps, Gould in Proc. of Zool. Soc. 1862, p. 281.—Swinh. in Ibis, 1863, p. 282.

THREE or four species of *Garrulax*, with white crests or white throats, inhabit the higher regions of India; these are the *G. leucolophus* of the Himalayas, its near ally the *G. Belangeri* of Tenasserim, and the still more nearly allied *G. albogularis*. This section of the genus finds a representative in the island of Formosa, in the present bird. All these large and conspicuously marked species present little, if any, difference in the colouring and size of the sexes; and move about the forests in small troops, in search of insects, which, with their larvæ, and berries constitute their principal food.

Speaking of the *Garrulax ruficeps* of Formosa, Mr. Swinhoe says, "This species frequents the central wooded range of mountains, and very rarely descends to the lower hills that flank the Chinese territory. I never met with it alive, and my hunters only succeeded in procuring a single pair. It differs entirely from all the Eastern-Asiatic species of *Garrulax*, but possesses many characters in common with the *G. albogularis*, from Bootan and Mussoorie, in India.

"Lores, space round the eye, and chin black; crown of the head bright rufous; cheeks light rufous olive; upper surface brownish olive; wings hair-brown, broadly margined with olive, the tertiaries being almost entirely of that colour; tail rich olive-brown, greyer on the two unspotted middle feathers, the next one has a whitish mark at the tip, the third a broad white mark, which increases in size until, on the lateral feathers, it is one inch and four-tenths deep; throat and lower part of the neck pure white; centre of the belly less pure; flanks, axillaries, and thighs buff; vent pale buff; under sides of the shafts of the primaries and tail-feathers whitish; under edges of the inner quills rufescent; bill black; legs, toes, and claws light flesh-brown.

"In the pair I possess, there is scarcely any difference as to size or colour."

The figures are of the size of life.



GARRULAX POECILORHYNCHA, Gould.

J. Gould and H. C. Richter, del. et lith.

Walter & Co., Imp.

GARRULAX PÆCILORHYNCHA, *Gould.*

Black- and Yellow-billed Garrulax.

Garrulax pæcilorhyncha, Gould in Proc. of Zool. Soc. 1862, p. 281.

——— *pæcilorhynchus*, Swinh. in Ibis, 1863, p. 283.

How different in character must be the trees and forests of Southern Asia from those north of the great dividing ranges! and how different must they be from the trees and forests of Europe and of England! for in neither of the countries last alluded to have we any member of this particular form; and, on the other hand, none or scarcely any of the true Thrushes are found in those inhabited by the members of the genus *Garrulax*, whose structure and thick plumage is so admirably adapted for the peculiar kind of vegetation amid which they are destined to dwell. These gregarious birds also exhibit many peculiarities in their habits and economy, and are said to be very garrulous and noisy, constantly pouring forth the loud laugh-like notes by which they may be distinguished from all the other birds of the forest.

"This," says Mr. Swinhoe, "is a commoner bird in the forest-ranges near Tamsuy than the *G. ruficeps*; like that species, it never descends to the lower unsheltered hills. It is a noisy, chattering species, assembling several together in the underwood, and keeping up an incessant jabbering, with frequent loud discordant cries interspersed. It is sly and vigilant, and tries to elude observation, generally escaping from the opposite side of the bush it is in, with short flights to the next, and so retreating from approach. In the *G. cæruleatus*, from Nepaul, we have a close representative of this species, with similar brown upper plumage and a scaly head; but that bird is readily distinguished from the *G. pæcilorhynchus* by the whiteness of its under surface."

Crown of the head, nape, back, rump, throat, and chest deep rusty brown; many of the feathers of the crown slightly fringed at their tips with black, a hue which is also observable on the tips of the ear-coverts; primaries and secondaries reddish brown on their inner webs, the external edges of the former light grey, and of the latter deep rusty chestnut; tail deep rusty chestnut, particularly the six central feathers, the remainder being darker, having less of the chestnut hue, and becoming lighter and of a reddish fawn-colour towards their tips; "these feathers are moreover obscurely barred with a shade of brown, distinctly when the feathers are new, but the bars almost entirely fade away with wear; abdomen and thighs deep blue-grey, tinged on the latter with rufous; under tail-coverts fawn-colour; basal portion of the bill greyish black, the apical portion bright ochre-yellow, with a greenish tinge; legs brownish grey, with light brownish soles and brown pads" (Swinhoe).

The sexes are alike. The figures are of the natural size.



GARRULAX GALBANUS, *Godwin-Austen*

GARRULAX GALBANUS, *Godwin-Austen.*

Black-chinned Garrulax.

Garrulax galbanus, Godwin-Austen, P. Z. S., 1874, p. 44, pl. x.

THIS species is intimately allied to *Garrulax gularis*, figured by me in the present work; the general style of colouring is the same, and these two yellow-breasted species stand out conspicuously as regards the latter character from the other members of the genus. The present bird is the smaller of the two, and differs in its black chin and white-tipped tail-feathers, to say nothing of the white under tail-coverts, grey forehead, and other minor characters. One would wish that such tangible differences as these would occur more frequently in this genus.

It will be noticed that this is yet another of the discoveries of Major Godwin-Austen, whose courtesy in lending me so many of his novelties I have great pleasure in acknowledging. He gives the following account of the species:—

“I first obtained this very handsome bird in the Muniṭṭ valley, under the Koupru range, in February 1873. It associates in large flocks of from fifty to eighty or more, very noisy, following each other in a long string through the high grass, which they seem to frequent and prefer to the denser forest. When on the flight their white tail-feathers and under tail-coverts make them very conspicuous. I observed it also on the headwaters of the Barak and other streams that flow into the Muniṭṭ valley on the north-east.”

I append also the original description by this gentleman.

“Above pale pure olivaceous on the head, with a brown tinge on the back; tail pale ashy brown, the four central feathers tipped umber-brown and barred, the four outer of the same colour in middle and broadly tipped with white; wing concolorous with back; quills pale umber-brown, edged grey. Very narrow frontal band; base of lower mandible, lores through eyes and ear-coverts rich black; beneath dull yellow, purer on the throat, passing into olivaceous on the flanks; under tail-coverts white.

“Bill black; legs ash-grey; irides red-brown.

“Length 9 inches, wing 3·65, tail 4·1, tarsus 1·35, bill at front 0·8.”

The figures are of the natural size, and are taken from the specimen lent me by Major Godwin-Austen.



GARRULAX PICTICOLLIS, *Swinh.*

GARRULAX PICTICOLLIS, *Swinh.*

Grey-banded Laughing Thrush.

Garrulax picticollis, Swinhoe, P. Z. S., 1872, p. 554.

As is often the case with the birds of China and India, the present species is a close ally and representative form of *G. moniliger* of the Himalayas. It is about the size of that species, but differs in having the tail tipped with reddish ochre instead of white, and in having a grey pectoral gorget.

This new *Garrulax* is one of the most recent species described by Mr. Swinhoe; but it has existed previously in European collections, for the British Museum has had for years a specimen designated by the late Mr. G. R. Gray as new to science, but no name was ever published; and curiously enough, no sooner had the bird been described, than a living specimen arrived in the Zoological Gardens.

We know little of the habits or economy of *G. picticollis*. Mr. Swinhoe states that the stomachs of the specimens dissected contained smooth caterpillars, grasshoppers, seeds, and pulp of fig-like berries.

I reproduce the very complete description of the species given by the same gentleman (*l. c.*):—

“Loral region, extending into a streak over the eye, and a broad mark under eye, throat, and middle of the belly white; cheek black, spotted with white; a black line from behind eye and another from base of bill meet round the ear and extend in a broad band down side of neck, nearly meeting on breast, where it is broken by buff feathers, which are only tipped with black; upper parts yellowish olive-brown, rufous on the back of the neck and hind edge of the necklace; sides of the breast and belly robin-rufous, paler on the tibiae and vent. Wings coloured like the back; the primaries and secondaries with their inner webs blackish brown, the outer webs of many of the former olive-buff near their tips, otherwise margined with dark olive-brown; axillaries buff, with a few black spots on the carpal edge of wing, and dark primary under-coverts; under wing whitish, tinged with buff. Tail of twelve feathers, the centrals coloured as the back, with indistinct bars of deeper shade; the fifth pair similar, but with reddish ochre tips, the remainder with broad oblique black band, very broadly tipped (one inch and more) with rufous buff.

“The above description is taken from an adult female procured near the end of November 1871. The fresh bird measured, length $12\frac{1}{2}$; wing 5.4, the first five quills graduated, 5th, 6th, and 7th equal and longest, 8th a little shorter; tail 5.75, outermost feather 1.6 the shortest, outer five graduated, the fifth and centrals equal; tarse 1.9. Upper mandible and broad tomial edge of lower bluish black, rest of lower horny, tinged with bluish; rim of eyelid blackish grey; iris chestnut; inside of mouth black; legs leaden, with paler claws.

“Another female, apparently younger than the last, has the necklace deep bluish grey shaded with black where it crosses the breast; inside of mouth dark green, with flesh-coloured tongue; rim of eyelid tinged with yellow. Length 12.9; wing 5.2; tail 5.6; tarsi 2.2.

“A bird, still younger, of the male sex, has the inside of mouth orange-yellow; rim of eyelid the same; necklace mixed with much bluish grey and widely broken on breast, the intermediate feathers not tipped with black; underparts light.

“The greater or less amount of black and grey in the necklace seems due to individual variation, rather than to sexual difference or to age.”

The figure is taken from a skin lent to me by Mr. Swinhoe, and represents the bird of the size of life.



GARRULAX CHINENSIS.

J. Gould & H.C. Richter, del et lith.

Walter, imp.

GARRULAX CHINENSIS.

Chinese Garrulax.

Lanius chinensis, Scop.

Turdus shanhu, Gmel. edit. Linn. Syst. Nat., tom. i. p. 84.—Lath. Ind. Orn., vol. i. p. 337.

——— *melanopsis*, Gmel. ibid. p. 1829.

Corvus auritus, Daud. Orn., tom. ii. p. 250.—Swinh. in Ibis, 1865, p. 350.

Crateropus leucogenys, Blyth, Journ. Asiat. Soc. Beng., vol. xi. p. 180.

Garrulax shanhu, Gray and Mitch. Gen. of Birds, vol. i. p. 225, *Garrulax*, sp. 2.

——— *chinensis*, Blyth, Journ. Asiat. Soc. Beng., vol. xiv. p. 598.—Id. Cat. of Birds in Mus. Asiat. Soc. Bengal, p. 95.—Bonap. Consp. Gen. Av., tom. i. p. 370, *Garrulax*, sp. 4.—Horsf. and Moore, Cat. of Birds in Mus. East-Ind. Comp., vol. i. p. 202.—Gray, Hand-list of Birds, part i. p. 202.—Swinh. Ibis, 1864, p. 423.—Id. Proc. of Zool. Soc. for 1871, p. 371.

Le petit Geay de la Chine, Sonn. Voy. aux Ind. Orient. &c., tom. ii.

Le Geai à joues blanches, Levaill. Hist. Nat. des Ois. de Parad. &c., tom. i. p. 125, pl. 43.

Black-faced Thrush, Lath. Gen. Syn., vol. ii. p. 37.—Steph. Cont. of Shaw's Gen. Zool., vol. x. part i. p. 292.—Lath. Gen. Hist., vol. v. p. 112.

Shanhu of the Chinese, Lath.

A FINE example of this interesting bird having lived for two or three seasons in the menagerie of the Zoological Society of London, I did not fail to make a drawing of it, such an opportunity of figuring from life rarely occurring with respect to insessorial birds which are natives of the distant country of China. And here it will not be out of place to allude to the value of the above-mentioned Society from the interest it affords to the artist and the naturalist, as well as to the public at large, by furnishing them with opportunities of studying the habits, so far as they are shown in a state of captivity, of the various animals it may from time to time possess: to the zoological artist, indeed, it is of incalculable benefit, inasmuch as, however well he may be able to depict a species from its dried skin, it must of necessity be far better executed from the living object.

The following notice, by Mr. R. W. G. Frith, of a specimen of this bird in confinement is given by Mr. Blyth in the 'Journal of the Asiatic Society of Bengal,' vol. xii. p. 179 *bis*:—"The bird was excessively tame and familiar, and delighted (like a Cockatoo) in being caressed and tickled by the hand, when it would spread out its wings and assume very singular attitudes. It was naturally a fine songster, and a most universal imitator. Whenever chopped meat or other food was put into its cage, it always evinced a propensity to deposit the bits one by one between the wires (a habit it has in common with the Shrikes, and which is also strikingly manifested by the *Kitta venatoria* and sometimes even by Mynahs); and when a bee or wasp was offered, this bird would seize it instantly, and invariably turn its tail round and make the insect sting, this several times successively, before eating it. A large beetle it would place before it on the ground, and pierce it with a violent downward stroke of the bill; a small snake (about a foot long) it treated in like manner, transfixing the centre of the head; it afterwards devoured about half the snake, holding it by one foot, while it picked it with the bill, which was its common mode of feeding."

Mr. Swinhoe, in his Notes on the Birds of China, remarks:—"In the Hong-kong bird-shops I saw in cages *Garrulax chinensis*. I have never met with it wild, and therefore fancy its range is south of Canton."

In his notes from Takow, Formosa, the same gentleman says:—

"This bird I purchased alive and sent to Dr. Squire for the Society's Gardens. It seems to range from the extreme south of China to the Tenasserim Provinces, where Mr. Blyth procured it. I have never met with this fine species in a state of nature. Its ordinary call is like a corvine croak. It also emits a loud note like 'hurrah,' often repeated in a low whistle. It was very lively and noisy.

"Bill black; legs and claws brown; irides crimson. Forehead, and a short crest at the base of the culmen, black, a streak of which colour also encircles the eye, and a patch of the same occurs on the throat and under the neck; just in the rear of the frontal crest are a few pointed white feathers; and there is an oval white patch on each cheek; the general plumage is cinereous; back, wings, and tail olive-brown, darker on the two latter, with deep-coloured shafts, quills edged with cinereous; blue-grey on the head."

The Plate represents the bird in two positions, of the size of life. I believe there is no external difference in the sexes.



PTERORHINUS DAVIDI, Swinh.

J. Gould & H. C. Richter, del et lith.

Walter, Imp.

PTERORHINUS DAVIDI, Swinh.

Père David's Pterorhinus.

Pterorhinus Davidi, Swinh. in Ibis, 1868, p. 61.

SOME time during the year 1869, Mr. Swinhoe placed in my hands a skin of the bird which forms the subject of the accompanying drawing, and stated that it was an inhabitant of China and that he had dedicated it to the Abbé Armand David, a gentleman who with much credit to himself has paid great attention to the ornithology of that part of the "Celestial Empire" in which he is located; and it affords me much pleasure to extend the scientific reputation of this worthy French priest by giving a representation, in the present work, of the highly curious bird named in his honour.

I have, of course, nothing to communicate of my own knowledge respecting Père David's Pterorhinus, and must therefore avail myself of what has been placed on record by Mr. Swinhoe in 'The Ibis' for 1868, p. 60, which I append below. The bird appears to me to be a Crateropine form, the habits and economy of which will probably assimilate to those of some of the species of that group which frequent the low forests and brushy coverts of the sterile portions of India; but this is merely a surmise, and one which may not prove to be correct.

"On the 25th of June, 1867," says Mr. Swinhoe, "I received a letter from the Abbé David, enclosing two bird-skins. The Abbé writes:—'Je profite de l'obligeance de M. Conolly pour vous envoyer deux peaux d'oiseaux; c'est tout ce que j'ai maintenant de disponible. Votre *Pomatorhinus stridulus* est fort abondant et sédentaire dans nos montagnes, de même l'autre oiseau que je vous envoie et dont je vous prierais de me faire savoir le nom. Ce dernier habite les mêmes localités que le *Pomatorhinus* et en a les mêmes habitudes.'

"These two birds were quite distinct from any thing Chinese that I had seen before; and I wrote to the worthy priest for permission to describe them. M. David's permission, dated Peking, 31 July, 1867, I received on the 4th of September. The so-called *Pomatorhinus* belongs, in my opinion, to the *Timaliinae*. At a first glance you might pronounce it to be a plain-coloured *Pomatorhinus*; but on second inspection you notice its *feathered and bristled nostrils*. Hence, what should it be a member of but a new genus? which I propose to style *Pterorhinus*.

"The type of this genus in the shape of the bill approaches *Pomatorhinus*; in the clothing of its nostrils it is an exaggerated *Garrulax*; in the sober uniformity of its coloration it resembles *Malacocercus*, and in the comparative slenderness of its legs and feet exceeds *Leucodipterum*."

In some notes with which Mr. Swinhoe has recently favoured me, he says:—

"This species forms a connecting link between the plain-coloured *Crateropodinae* of Africa and the curved-billed *Pomatorhini* of Asia. It was discovered among the hills near Peking, by the Abbé Armand David (after whom I have named it), Missionary of the Lazarist Mission, and is noted in his 'Catalogue of Chinese Birds' as *Pomatorhinus stridulus*, with the remark that 'it is common and resident in our mountains; cries and sings at all seasons.' On my visit to the mountains, in the autumn of 1868, I noticed that these birds had many of the habits of the South-China Song-Thrush, wandering in small parties from bush to bush on the sides of the hills, hiding among the leaves and chattering to each other, a male occasionally isolating himself and pouring forth a well-sustained song."

The following is Mr. Swinhoe's description of this rare species:—

General plumage amber-brown; the downy or basal half of each feather bluish grey, a short superciliary mark of brownish white passes over each eye, and some of the frontal feathers are edged with the same colour; cheeks and under neck pale; abdomen, tibiae, and under tail-coverts deep umber; a ring on the tarsal edge of the tibial feathers whitish; chin black, giving out divergent black *vibrissæ*; near the symphysis of the lower jaw a few small whitish feathers occur, and below the black chin-spot the feathers are inclined to whitish grey; quills brown, edged with greyish white; tail umber-brown, on the two middle feathers deepening towards their tips, where faint cross bars appear; the other rectrices blackish brown; bill (in the dried specimen) pale ochreous yellow, brownish on the upper mandible, except at its edges; legs and claws (of the same specimen) liver-brown. On the ticket was inscribed in pencil "12 April, 1867; Peking, fem. adult." Iris clear brown.

The figure is of the natural size.



ACTINODRA EGERTONI, Gould.

J. Gould and H.C. Richter del. et lith.

Walter Inup

ACTINODURA EGERTONI, Gould.

Egerton's Actinodura.

- Actinodura Egertoni*, Gould in Proc. of Zool. Soc., part iv. 1836, p. 18.—Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 84.—Gray, Gen. of Birds, vol. i. p. 226, *Actinodura*, sp. 1.—Fras. Zool. Typ., pl. 40.—Blyth, Cat. of Birds in Mus. Asiat. Soc., Calcutta, p. 98.—Bonap. Consp. Gen. Av., tom. i. p. 373.—Horsf. and Moore, Cat. of Birds in Mus. East Ind. Comp., vol. i. p. 212.—Jerd. Birds of India, vol. ii. part i. p. 52.
- Leiocincla plumosa*, Blyth, Journ. Asiat. Soc. Beng., vol. xii. p. 953; vol. xiv. p. 600.
- Ixops rufifrons*, Hodgs. M.S.
- Alcurus Nipalensis*, Hodgs. in Gray's Zool. Misc., p. 83.
- Rumnio-pho* of the Lepchins. (Jerdon.)

EXAMPLES of the elegant *Actinodura Egertoni* have for many years graced the collections of this country, to which they were transmitted by Mr. Hodgson, Griffiths, and others. For the specimens of this and some other species of birds in my own cabinet I am indebted to the kindness of Edward Vernon Harcourt, Esq., who, I believe, received them from Sikhim. It is much to be regretted that our Indian travellers have given us no account of the habits and economy of this bird further than that which we find in a general note on several allied genera by Mr. Hodgson. That it is very wren-like in its actions, and that it frequents dense and humid mountain-forests, there can be little doubt; neither, I presume, can there be any question as to its food consisting of insects and their larvæ, procured either on the ground or among the leafy branches of the trees; Mr. Jerdon, however, states that it also feeds on fruits. The plumage of the two sexes is very similar, but the female is somewhat smaller than the male.

It gave me great pleasure to assist in perpetuating the fame of a gentleman, who has devoted a long life to the study of nature, by naming this bird in his honour; but without such a testimony on my part it will be readily admitted that Sir Philip de Malpas Grey Egerton will ever rank among the most eminent scientific men of our age for his many valuable papers on fossil fishes and various geological subjects.

"This bird," says Mr. Jerdon, "is found from Nepal to the hill-ranges of Assam and Sylhet. It is very common near Darjeeling, at an altitude of from three to six thousand feet or more, associates in small flocks, wanders from tree to tree, carefully examines the foliage and branches, never descends to the ground, and feeds both on fruit and insects, more especially the latter.

"Horsfield gives Afghanistan as a locality in which it is found; but I have no doubt that Griffiths's specimens were from the Khasia hills, where I noticed that it was far from rare."

Feathers surrounding the base of the bill deep brownish red; crest and nape grey; upper surface light rufous brown; wing-coverts bright rufous; primaries and secondaries rufous at the base and dark brown for the remainder of their length; the three first primaries narrowly margined externally with silvery white, and the remainder of the primaries and the secondaries regularly barred on their outer webs with greyish white; two central tail-feathers rufous, the remainder brown, faintly barred with black near the extremity and narrowly tipped with white; under surface deep sandy buff, with the exception of the centre of the abdomen, which is white; irides brown; bill light horn-colour; legs pale brown.

The figures are of the size of life. The plant is the *Rhododendron camelliaeflorum*.



ACTINODURA NIPALENSIS, *Hodgs.*

J. Gould & H.C. Richter del et lith

Walter, imp.

ACTINODURA NIPALENSIS, *Hodgs.*

Nepaulese Actinodura.

Cinclosoma nipalensis, Hodgs. in Asiat. Res., vol. xix. p. 145.

Actinodura nipalensis, Gray, Cat. of Spec. and Draw. of Mamm. and Birds pres. to Brit. Mus. by B. H. Hodgson, Esq., p. 84.—Gray, Gen. of Birds, vol. i. p. 226, *Actinodura*, sp. 2.—Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 98.—Horsf. and Moore Cat. of Birds in Mus. East. Ind. Comp. vol. i. p. 212.—Jerd. Birds of India, vol. ii. part i. p. 53.

Isops nipalensis, Hodgs. in Gray's Zool. Misc., 1844, p. 84.

Ramnio-pho of the Lepchins. (Jerdon.)

THE *Actinodura Nipalensis*, although very similar in colour to *A. Egertoni*, differs from that species in its shorter and more rounded tail, in the feathers of that organ being of a much darker hue, the two centre ones alone being brown, and that only on their basal half, their apical portions being black; another difference also occurs in the absence of white on the abdomen, and if a further comparison be necessary, the black stripe from the base of the under mandible to the lower part of the throat is a feature by which the present species may always be recognized. Mr. Jerdon, who is the only person who has written a word on its habits, states that it is strictly a mountain species, and that it lives at a much greater elevation in Nepaul than its near ally. Judging from its structure and the silky character of its plumage, I should have supposed this bird to be an inhabitant of scrubby underwood and dense herbage, but it is said to frequent high trees.

"The *A. Nipalensis*," says Mr. Jerdon, "replaces the *A. Egertoni* at higher elevations, being found from about 7000 to 10,000 feet and upwards. It has only been procured in the S.E. Himalayas, in Nepal, Sikhim, and Bootan. It may be said to be more arboreal than its ally, for it is frequently seen perched on the very tops of moderate-sized trees. It feeds chiefly on insects, and I found it, on Mount Tongloo, feeding on the various insects that infest the flowers of the rhododendrons. I did not obtain the nest of either species, but presume they build on high trees."

Like the *Actinodura Egertoni*, examples of the *A. Nipalensis* have been for many years in this country, whence from time to time some of them have been sent to the continental museums, which are dependent upon us for this and many other species peculiar to the hill districts of the Himalayas, and particularly to those of Nepaul and the neighbouring countries.

Crown of the head, crest, and nape dark brown, with a stripe of pale greyish brown down the centre of each feather; cheeks and ear-coverts dark grey; stripe from the lower mandible passing beneath the ear-coverts black; upper surface and wing-coverts dark rufous; spurious wing black; wings dark slaty brown, the three outer primaries unmarked, the remainder and the secondaries crossed on their outer webs with numerous broad bands of rufous, which extend on to the inner webs of those nearest the body; tail-feathers alternately banded on their basal two-thirds with rufous and black, the apical third black without bars, but the lateral ones tipped with white, which increases in extent as the feathers recede from the centre; chin dull white; breast and centre of the abdomen ashy; flanks, vent, thighs, and under tail-coverts dull rufous; irides brown; bill dark horn-colour; legs light fleshy brown.

The figures are of the natural size. The plant is the *Codonopsis cordata*.



ACTINOTOPHA WALDENI Godwin - Austen

ACTINODURA WALDENI, *Godwin-Austen.*

Walden's Actinodura.

Actinodura Waldeni, Godwin-Austen, P. Z. S., 1874, p. 46, pl. xii.

THIS third species of the genus *Actinodura* is one of the recent discoveries made by Major Godwin-Austen in the Nágá Hills; and on reference to the Plates given in the present work a casual observer will perceive at once its specific distinctness. In its shorter tail and general coloration the present bird is most like the *A. nipalensis*; but the feathers of the breast, every one of which is centred with brown, are a very striking and characteristic feature in the new form. All three are elegant and harmoniously coloured little birds, rich brown and chocolate-brown being the predominant tints.

Of course the time will come when we shall know as much about the habits and economy of *Actinodura* as we do about *Accentor* and other European forms; and it would be interesting to know whether these birds are gifted with song, as is the case with so many of these sombre-coloured birds. This we have to learn from the researches of future observers; but, judging from its bill, I should imagine that they were not very highly gifted as songsters. Dr. Jerdon places *Actinodura* in the *Timalinæ*, close to *Trochalopteron* and *Sibia*; but from their barred wings and tail they apparently show some affinity to the *Troglodytinæ*.

Major Godwin-Austen is at present the only ornithologist who has met with this bird, and I am indebted to him for the loan of the typical specimen. The following is his original description:—

“Head full-crested, extending back for more than an inch, hoary grey, edged pale; back rich brown with a greenish hue, becoming more rufous on the rump and upper tail-coverts; base of tail-feathers chestnut, for half their length narrowly barred with black, then black for terminal inch, the three outer tipped white; quills black, outer web chestnut at base, then barred with black, and the narrow terminal portion grey; primary coverts black, the winglet-feathers grey, barred black; ear-coverts hoary; side of head hair-grey; chin, breast, and abdomen rufous brown, paler on the chin and throat, the whole having a streaky appearance, the feathers being centred with a darker shade.

“Bill grey; legs and feet fleshy brown; irides pale grey.

“Length 8 inches, wing 3·48, tail 3·45, tarsus 1·2, bill at front 0·62.

“I first shot this bird on the Peak of Japvo, at about 9000 feet, on the Burrail range, Nágá Hills.”

The figures in the Plate are of the natural size.



ACTINODURA RAMSAYI, *Walden.*

J. Gould & W. Hart del et lith.

Walter, imp.

ACTINODURA RAMSAYI.

Ramsay's Barwing.

Actinura ramsayi, Wald. Ann. & Mag. Nat. Hist. ser. 4, xv. p. 402 (1875).—Hume, Stray Feathers, iii. p. 404 (1875).—Wardlaw Ramsay, Ibis, 1877, p. 464, pl. xiii.—id. Orn. Works of Marquis of Tweeddale, p. 415.

Actinodura ramsayi, Hume, Stray Feathers, 1879, p. 97.

RAMSAY'S Barwing was discovered by the gentleman after whom it is named, in the hills of Karen-nee, in Burmah, at a place called Kyai-pho-gyee. He states that he found it frequenting the jungle-covered mountain-streams in the open country of Karen-nee, at an elevation of about 3000 feet, but he did not subsequently meet with it.

The species is a very distinct one, easily recognizable by its ochraceous coloration; and I add herewith the original description given by the late Marquis of Tweeddale.

“Under surface from chin to vent clear ochreous buff, somewhat darker on the chin and throat; upper surface cinereous olive; forehead almost ferruginous; crown and crest, with the nape, like the back, but tinged with ferruginous; most of the dorsal feathers traversed by faint, yet distinct, narrow dark brown bands or lines, which on the upper tail-coverts are more closely set together and very conspicuous; lores and cheeks dark brown, almost black; sides of the head behind the eyes and some of the lateral crest-plumes ashy, without any ferruginous tinge; eyelids white; primaries narrowly barred with black on their outer webs up to their insertion, also the minor coverts; all the rectrices olive-brown, like the tertiaries, and distinctly barred with numerous well-defined narrow black bands; all but middle pair broadly tipped with white; under tail-coverts and flanks somewhat darker than remainder of under surface. Wing 3·50 inches, tarsus 1·12, tail 5; bill from forehead 0·87.”

Captain Wardlaw Ramsay has given the soft parts of the species as follows:—“Iris light hair-brown, bill horny brown, legs slaty brown.”

In the Plate I have given a life-sized illustration of the male and female, drawn from the typical pair lent to me by Captain Wardlaw Ramsay.



RIMATOR MALACOPTILUS, Blyth.

J. Gould & H. C. Richter del et lith.

Walter Inge

RIMATOR MALACOPTILUS, *Blyth*.

Long-billed Wren.

Rimator malacoptilus, Blyth, Journ. Asiat. Soc. Beng., vol. xvi. pp. 154, 864, 878.—Ann. Nat. Hist., n. s., vol. xx. p. 317.—Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 338.—Horsf. & Moore, Cat. of Birds in Mus. East-Ind. Comp., vol. ii. p. 717.—Jerd. Birds of India, vol. i. p. 493.
Caulodromus Gracei, G. R. Gray, Proc. of Zool. Soc., part xv., 1847, p. 6.—Id. Gen. of Birds, vol. i. p. 144, pl. 44. fig. 2.—Ann. Nat. Hist., n. s., vol. xix. p. 352.—Bonap. Consp. Gen. Av., tom. i. p. 225.
Merva Jerdoni, Hodgs. Calc. Journ. Nat. Hist., 1847, p. 96.
Karriak tungbrek-pho of the Lepchas.

THE bird figured on the accompanying Plate must be regarded as one of the most curious and highly interesting species comprised in the Indian avifauna. It appears to be as scarce as it is singular in structure (for at present it is only known to us from the few skins that have been collected by Mr. Hodgson and one or two other observers); and a great length of time will probably elapse before we become acquainted with its habits and economy. Its proper situation in our systems is very questionable; Mr. Jerdon places it near *Troglodytes*, assigns to it the trivial name of the Long-billed Wren, and has little doubt of the propriety of the position he has given it. "Mr. Blyth," says he, "calls it a *Myiotherine* bird, approaching the Wrens. Gray puts it in his family *Certhinæ*, as does Prince Bonaparte, but quite erroneously, I think." Its very short, almost an apology for a tail, its rounded wings, long bill, stout tarsi, lengthened hind toes and claws, and brown plumage, all indicate that it habitually resorts to the ground, or that the boles of fallen trees and moss-covered stones in the humid forests are the places it usually frequents. We should like to know the character and shape of its nest, whether open or domed, like that of *Troglodytes*, the colour and number of its eggs, the nature of its song, if any, and if the sexes assimilate in form and size and in the colouring of their plumage: with respect to this latter point the probability is that there is no visible difference.

Trusting I may live to read a more full account of the history of this highly curious bird from the pens of some of the young and rising ornithologists of our Indian Empire, I must now content myself with subjoining Mr. Jerdon's brief note respecting it. He says:—

"I procured two or three specimens of this remarkable bird at Darjeeling, but regret that I did not observe it myself. It was said to be chiefly a feeder on the ground, among brushwood and fallen trees; and I found the remains of insects in its stomach."

Upper surface deep brown, with fulvous shafts; scapularies and interscapularies mingled black and brown; primaries and tail deep brown, slightly tinged with rufous; under surface pale brown, striated with a darker tint; a black streak on each side of the throat; flanks ferruginous olive; under tail-coverts dark rust-red; bill fleshy at the base, dark horn-colour at the tip; legs brownish flesh-colour; irides light brown.

The figures are of the natural size.



DRYMOCHARES STELLATUS, Gould.

Stellated Shortwing.

Brachypteryx (Drymochares) stellatus, Gould in Proc. of Zool. Soc., 1868, p. 218.

MR. BLYTH, who has so assiduously investigated the avifauna of India, and whose writings on the subject are familiar to every ornithologist, first called my attention to this interesting species, assuring me that it was new, and consequently a desirable bird to be at once figured in my 'Birds of Asia'; nor am I less indebted to Lieut. C. V. Eccles, of the Rifle Brigade, by whom two specimens were brought to England, for the loan of them for the purpose of describing and figuring—but still more for his liberality in presenting me with one, the other (with equal liberality) being added to the National Collection at the British Museum. In the 'Proceedings of the Zoological Society' above referred to, I placed this bird in the genus *Brachypteryx*, but, in case ornithologists should deem the situation an erroneous one, I at the same time proposed for it the sub-generic title of *Drymochares*, and remarked, "In its structure and in its dense and silky plumage this bird is so closely allied to the smaller members of the genus *Brachypteryx* as scarcely to be removeable from them; and I should not have ventured to suggest a separate generic title, were there not so great a difference in its colour and markings. The beautiful stellations of the breast render it specifically different from every other bird with which I am acquainted, while the black crescentic wavy lines of the chest and the chestnut colouring of the back distinguish it from all the species of the genus *Brachypteryx*, to which, in the lengthened form of its thighs, tarsi, and toes, it bears a striking resemblance. Some may be inclined to regard the bird as a member of the old genus, while others may consider its colour, markings, and *tout ensemble* sufficiently different to justify the divisional name" I have suggested.

In size the *Drymochares stellatus* is about twice that of the European Wren (*Troglodytes Europæus*). Its lengthened tarsi and general structure indicate that stony scrubby places are its natural abode; while its dense and silky plumage proves, to my mind at least, that they must also be damp or humid. It is not often that we receive an Indian bird that has escaped the searching eye of Mr. Hodgson; but the present one certainly has eluded his observation—a circumstance which is doubtless due to the secluded habits of the species. The two specimens above mentioned were brought, with many other birds, direct from the rich country of Nepaul. Lieut. Eccles, unfortunately, could not give me any precise information as to where his specimens were procured, further than that he believes they were shot on the dense scrubby side of the mountains, at an elevation of about 10,000 feet.

Forehead, ear-coverts, breast, chest, and abdomen grey, crossed by numerous narrow wavy lines of black; at the tip of each of the feathers of the abdomen, flanks, under (and some few of the upper) tail-coverts an irregular arrowhead-shaped mark of white; lores black; all the upper surface, wings, and tail chestnut-red; bill black; feet brown.

Total length $4\frac{1}{2}$ inches, bill $\frac{5}{8}$, wing $2\frac{3}{4}$, tail 2, tarsi $1\frac{1}{4}$.

The figures are of the size of life.



TURDINUS ROBBI.

Forrest & Hart del. & lith.

Walter, Imp.

TURDINULUS ROBERTI.

Robert's Pygmy Babbler.

Pnoepyga, sp., Godwin-Austen, Journ. As. Soc. Beng. xxxix. p. 101 (1870).

——— *roberti*, Godwin-Austen & Walden, Ibis, 1875, p. 252.—Hume, Stray Feathers, 1876, p. 218.

Turdinulus roberti, Hume & Davison, Stray Feathers, 1878, p. 234.—Hume, op. cit. 1879, p. 93.

THE general aspect of this bird is so like that of a *Pnoepyga* that I am not surprised that its original describers placed it in that genus; but its plumage is quite unlike that of a Wren, and much resembles that of a *Turdinus* in colour. Mr. Hume has therefore, in my opinion, correctly indicated the affinities of the bird in his name *Turdinulus*; and I find, on examining the structure of the specimen before me, that it is a true Timeline bird, with easily distinguishable rictal bristles. I at once adopt Mr. Hume's generic name for it.

The original specimens were obtained at Chakha in the Manipur hills, and at Asalu, by Mr. William Robert. It was observed also on Mooleyit in Tenasserim by Mr. Davison, at a height of 5500 feet and upwards. The following note on the habits of the birds is from the pen of the last-named naturalist:—"Generally seen in pairs, occasionally three or four together, hopping about on the ground or about the stems of the undergrowth only in the densest portions of the forest, and not preferentially near water. When alarmed, like *T. brevicaudatus*, they all raise a note of alarm—'chick-chick, chick; chick-chick, chick, chick,'—which they continually and unceasingly utter, until either you have passed on or they think they have got out of sight and danger. They are not shy, and do not fly unless very closely pressed, and then only for a short distance. As a rule, when disturbed, they leave the ground and thread their way with great rapidity amongst the stems of the brushwood, clinging sideways to these as many birds do. They are entirely insectivorous."

The following is a copy of the description given by Colonel Godwin-Austen and Lord Tweeddale:—"Above olive-brown, each feather pale-centred and fringed or tipped with dark brown. Lores albescent. Between the eyes and the rictus black. A well-defined streak extending from above the eye down each side of the head fulvous. Ear-coverts cinereous at base, brown towards the tips. Chin and throat pure white, each throat-feather being terminated by a small black triangular drop; as the tips of the feathers overlap, these drops form continuous black lines, the two principal ones descending from the angles of the under mandible. Cheeks ferruginous, each feather with a black terminal drop. Pectoral and abdominal feathers pale brown, with broad pure-white or fulvous-white centres. Under tail-coverts bright ferruginous yellow. Plumage on the rump loose, soft, and dense, completely concealing the short tail, and being of an almost uniform ferruginous brown colour. Wings, when closed, dark chocolate-brown, most intense on the secondaries. Most of wing-coverts distinctly tipped with almost pure white, so also the inner tertiary quills. Rectrices chocolate-brown. Mandibles dark brown. Legs pale horn-brown. Bill from nostril .37 inch, wing 2.15, tarsus .75, tail 1.15."

The Plate, which represents two birds of the natural size, is drawn from a specimen kindly lent me by Colonel Godwin-Austen.

[R. B. S.]



TURDINUS BREVICAUDATUS, *Blyth.*

TURDINUS BREVICAUDATUS, *Blyth*.

Short-tailed Turdinus.

Turdinus brevicaudatus, Blyth, Journ. Asiat. Soc. Beng., vol. xxiv. p. 272.—God.-Aust. Journ. Asiat. Soc. Beng., vol. xxxix. p. 269.

——— *striatus*, Wald. in Ann. & Mag. Nat. Hist., 1871, 4th ser. vol. vii. p. 241.—Gray, Hand-list of Birds, part iii. p. 324. sp. 4776^a.

THERE is no group of birds with which we are less acquainted than that of which the present one is a member; almost all we know respecting them is that several of the species are constantly found in the collections of birds sent to this country from Singapore.

The species here represented appears to range from the Tenasserim provinces to the Khasia Hills; a fine example from which latter locality was kindly lent to me by Mr. Jerdon.

All the information on record respecting the *Turdinus brevicaudatus* is comprised in the following notes by Mr. Blyth, extracted from the twenty-fourth volume of the 'Journal of the Asiatic Society of Bengal.' It belongs to a form that is very well known, and quite worthy of the attention of ornithologists; and, as no one could furnish a better monograph of these little brown birds, and no one has a richer store of materials for the purpose than Lord Walden, I trust he will take up the subject, and by so doing confer a great boon upon his brother naturalists. As a proof that this species at least has not escaped his attention, I may mention that, unaware of its having been previously characterized, his Lordship has given a description of it in the 'Annals and Magazine of Natural History' for 1871, under the name of *Turdinus striatus*, from the markings of the throat, which name must of course sink into a synonym.

Mr. Blyth, when characterizing this bird, says:—"A third and more aberrant species, remarkable for its short tail, in which respect the Malayan *T. macrodactylus* is intermediate to this and the preceding species (*T. crispifrons*).

"These birds belong to a group which is preeminently difficult of classification, viz. the great *Timalia* series, which obtains its maximum development in the Malayan peninsula. As a genus or subgenus it is barely separable from *Trichostoma*, nobis, and this again from *Malacopteron*, *Aleippe*, nobis (exemplified by *Brachypteryx sepiaria*, Horsfield, and numerous other species affined to it). *Turdinus* is distinguished by its robust form, and especially by its peculiarly mottled plumage, the feathers being mostly pale-shafted and black-edged.

"Colour of the upper parts much as in *T. crispifrons*, but somewhat more rufescent, and the feathers still softer and less elongated; of a rich olive-brown, black bordered and paler towards the shaft; at the forehead inclining to ashy, and scarcely stiffened; plumage over the rump decomposed and excessively dense and copious; throat mingled dusky and whitish, the dark part occupying the tip of each feather, and forming a series of striæ; remainder of the under surface ferruginous, deepest on the middle of belly and under tail-coverts; a series of whitish terminal specks on the great range of wing-coverts, and others tipping the secondaries and tertiaries; bill dusky above, pale beneath; legs pale, with whitish claws.

"Size comparatively small. Length about $5\frac{1}{2}$ inches; of which the tail is $1\frac{5}{8}$ in., its outermost feather $\frac{3}{8}$ in. shorter than the medial; closed wing $2\frac{1}{4}$ in., more rounded than in the two other species, having the sixth to the tenth primaries subequal and the longest; bill to gape $\frac{1\frac{3}{8}}{16}$ in.; tarsi $\frac{7}{8}$ in."

The following is Lord Walden's description of the bird under the name of *T. striatus*:—

"Feathers of the head, nape, and back cinereous brown, narrowly edged with a rich ruddy brown, changing to dark brown on the margins. Wings and tail pale brown, tinged with rufous. The long and lax upper tail-coverts brown, tipped with ferruginous; under tail-coverts bright rust-colour. Chin, throat, and upper breast-feathers white at the base and on the edges, with brown centres. Abdominal region and flanks pale brown, tinged with rufous. Lores, cheeks, and ear-coverts pale brown. Upper mandible horn-colour; lower paler, inclining to yellow. Legs yellowish brown. Bill from forehead $\frac{5}{8}$ of an inch, wing $2\frac{3}{8}$, tail 2 inches, tarsus $\frac{7}{8}$."

The figures are of the natural size.



YUHINA DIADEMATA, J. Verr.

J. Gould & H.C. Richter, del. et lith.

Victor, imp.

YUHINA DIADEMATA, *J. Verr.*

White-naped Yuhin.

Yuhina diademata, *J. Verr.* Nouv. Archiv., 1869, Bull. p. 35.—Swinh. Proc. Zool. Soc., 1871, p. 373.

ORNITHOLOGISTS are indebted to Mr. Hodgson for the discovery of the beautiful *Yuhina occipitalis*; and in like manner they have to thank the Père Armand David for making known to them the existence of the present even more interesting species. For the loan of one of the specimens obtained by the learned Abbé, from which my drawing was taken, I have to record my obligations to Mr. D. G. Elliot. I learn from my friend M. Jules Verreaux, of Paris, that the native country of the bird is Moupin, in North-western China; and to this French savant is due the merit of giving the first description of the plumage, and the information that the sexes are alike in colouring.

If my representation of this species be compared with that of *Yuhina occipitalis*, it will be seen that the *Y. diademata* is somewhat larger in size, and that its conspicuous occipital mark is white instead of rusty red, whence the two trivial names of Rusty-naped and White-naped Yuhin.

Mr. G. R. Gray, in his 'Hand-list of Birds,' has mentioned two other species of this form, namely *Yuhina gularis* and *Y. nigrimentum*. Not a word has been recorded respecting the habits and economy of any of these birds. I believe they all frequent the high ranges of the Himalayas and their eastern continuations towards China.

"General colour earthy brown, paler beneath; the middle of the abdomen and the under tail-coverts pure white, becoming still more pure on the occipital spot, which is preceded by some long feathers forming a crest; wings and tail black, with white shafts, which are most apparent on the latter" (*J. Verreaux*). To this I may add that the irides, bill, and feet appear to have been of a yellowish hue.

The figures are of the natural size. The plant is the *Indigofera decora*.





NEW ORLEANS PALMISTE, 1871

PELLORNEUM PALUSTRE, *Jerd.*

Marsh-Pellorneum.

I AM indebted to Mr. Jerdon for the loan of a very fine specimen of this rare little bird. After my drawing was made, Mr. Jerdon, with his own hand, wrote upon it the name under which it is figured (*Pellorneum palustre*, Jerd.), and, if I recollect rightly, at the same time informed me that it had been described in the 'Journal of the Asiatic Society of Bengal' for 1870; but on reference I do not find therein the description of any bird so designated. It is true that, in an enumeration of some Asiatic birds by Major Godwin-Austen, a species of this form is mentioned under the name of *Pellorneum ruficeps*, Swainson; and Mr. Swinhoe has described, in the 'Annals and Magazine of Natural History' for 1871, a species from the Tenasserim provinces, which had been given to him some years before by Mr. Blyth as *P. subochraceum*. Now, can these names be in any way connected with the present bird? I think not; certainly not the former. If Mr. Swinhoe were not away in China, and Mr. Jerdon out of England, those gentlemen might have thrown some light on the subject; and I would have delayed my Plate for this purpose, had not the entire impression been printed off and coloured. I therefore publish it, and must defer to a future opportunity the correction of any discrepancy that may be discovered, as well as any details respecting its history, habits, actions, and economy that may be acquired.

All the upper surface, wings, and tail reddish brown; above the eye a streak of sandy buff; chin, centre of the breast and abdomen white; sides of face, breast, and flanks rufous; the feathers on each side of the throat, of the breast, and flanks with a longitudinal spot of dark brown; under tail-coverts rusty red; bill brown, lighter beneath; legs pale brown.

Habitat. Assam, Cachar.

The figures are of the natural size.





ALCIPPE BRUNNEA, *Gould.*

J. Gould and H. C. Richter del. et lith.

Walter & Cohn, Imp.

ALCIPPE BRUNNEA, *Gould.*

Brown Alcippe.

Alcippe brunnea, Gould, in Proc. of Zool. Soc. 1862, p. 280.—Swinh. in Ibis, 1863, p. 297.

Two species of this genus of little brown birds inhabit the Island of Formosa, both of which are considered by Mr. Swinhoe to be new; these are the *Alcippe brunnea*, Gould, and the *A. Morrisonia*, Swinhoe. Besides these, we find many others named by Messrs. Horsfield and Moore in their 'Catalogue of the Birds in the Museum of the East India Company.'

In comparing *A. brunnea* with the *A. Morrisonia*, Mr. Swinhoe says, "This is a larger and browner bird than the preceding, with a larger bill, but has the same black double streak on the back of the neck. The sexes appear to be similar, as in that species. This is also a mountain bird, and not observed on the plains. Its legs are much stronger, and its nails, especially the hind one, larger and more straightened. Its tail, too, is much more graduated, the outer feather being $\frac{3}{10}$ ths of an inch shorter than the central, and all the feathers narrowing to their tips."

Mr. Swinhoe not having recorded any information respecting the habits and economy of this bird, I am unable to give any details respecting them, which is the more to be regretted since we know nearly as little respecting the species inhabiting India.

Feathers of the crown and upper surface deep reddish brown, those of the crown slightly fringed with a darker tint, giving that part a scaled appearance; a longitudinal black stripe commences above the eye and passes down towards the nape, separating the brown colouring of the crown from the grey of the sides of the face and ear-coverts; throat and under surface brownish grey; flanks wood-brown; primaries and tail-feathers uniform chestnut-brown; thighs reddish brown; bill horn-colour; legs and toes flesh-white.

The figures on the accompanying Plate are of the size of life.



CUTIA NIPALENSIS, *Hodgs*

J. Gould and H. C. Richter, del. et lith

Hallman and A. Walton, imp

CUTIA NIPALENSIS, *Hodgs.*

Nepaul Cutia.

Cutia Nipalensis, Hodgs. Journ. Asiat. Soc. Beng. vol. v. p. 774, and vol. vi. p. 112.—Blyth, Journ. Asiat. Soc. Beng. vol. xi. p. 183.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 98.—Gray and Mitch. Gen. of Birds, vol. iii. App. p. 15.—Gray, List of Spec. and Draw. of Mamm. and Birds presented to Brit. Mus. by B. H. Hodgson, Esq., p. 96.—Bonap. Consp. Gen. Av. p. 373.—Horsf. Cat. of Birds in Mus. East Ind. Comp. vol. i. p. 227.

Heterornis (Cutia) nipalensis, Hodgs. in Gray's Zool. Misc. p. 84.

Khatya or *Khútya*, of the Nepaulese.

THE *Cutia Nipalensis* is a most singular bird, the style and colouring of its plumage reminding us of some of the members of the genus *Pteruthius*, while its structure resembles that of *Pastor*. It is a native of Nepaul and Bootan, and is by no means common in our collections. Mr. Hodgson had the honour of first giving it generic and specific appellations, accompanied by the following brief note, which I find in the fifth volume of the "Journal of the Asiatic Society of Bengal:"—

"These birds inhabit the central and northern regions of Nepaul, adhering to the wilds, and feed on seeds and hard ground insects." Specimens of both sexes are contained in the collection at the British Museum, and in that of the Honourable East India Company; and it is to the Court of Directors that I am indebted for a fine example of each sex which I myself possess: a fine male was also presented to me by Edward Vernon Harcourt, Esq.

As will be seen on reference to the accompanying Plate, a well-marked difference occurs in the sexes; the back of the male being of a uniform colour, while in the opposite sex the uniformity is broken by tear-shaped spots of black.

The male has the forehead and crown dark slate-grey, passing into deep black on the lores; ear-coverts and base of the neck, back, scapularies, rump and upper tail-coverts orange-red, bounded towards the wings with a streak of a greyer hue; wings black, the primaries and secondaries broadly margined at the base of the external webs with bluish grey, and slightly tipped with white; chin, throat and centre of the abdomen white; sides of the neck and flanks buff, decorated with conspicuous crescentic bands of brownish black; under tail-coverts buff; irides brown; base of the under mandible blue; remainder of the bill black; legs reddish or orange flesh-colour.

In the female the lores and ear-coverts are reddish brown; the upper surface is of a dull red, with a tear-shaped spot of black near the tip of each feather; in other respects this sex resembles the male, but the colours are not so bright.

The figures are of the natural size.

The plant is *Ruellia anisophylla*.



SUTTORA BRUNNEA, Anderson.

SUTHORA BRUNNEA, *Anderson.*

Anderson's Suthora.

Suthora brunnea, Anderson, P. Z. S. 1871, p. 211.—Swinhoe, *l. c.* p. 373.

THE genus *Suthora* may be divided into two very distinct sections, in the first of which may be placed all those whose plumage is particoloured and their chins black; while the second section would contain those of more uniform plumage, with the throat and chest of the same colour. I have already in the present work, figured two species of the genus; and it will be seen that *S. nipalensis* belongs to the first, and *S. webbiana* to the second section mentioned above. The bird which I now introduce to my readers is allied to the last-named species and to *S. alphonsiana* of Verreaux; but it differs from both in the absence of rufous on the wing, as well as in the vinaceous colouring of the ear-coverts and sides of the neck. In *S. alphonsiana* these parts are grey; and in *S. webbiana* they are pale fulvous brown, like the head. The home of the present bird is the province of Yun-nan in Western China. Here it was discovered by Dr. John Anderson, the energetic Director of the India Museum at Calcutta, who has most obligingly lent me one of the typical examples for the purpose of figuring in this work.

The following is a description of the bird:—

General colour of upper surface olive-brown; the wings and tail uniform, the primaries externally margined with fulvous; the head and neck bright chestnut, including the ear-coverts; cheeks and throat pale vinous; the feathers with tiny mesial streaks of rufous; the rest of the under surface pale fulvous washed with olive on the flanks; under wing-coverts buffy-white; the edge of the wing conspicuously fulvous, the inner lining of the quills pale brown, edged with fulvous along the inner web, and rather inclining to rufous on the secondaries. Total length 5 inches, culmen 0·35, wing 2·0, tail 2·6, tarsus 0·75.

The figures in the Plate are of the size of life.



SUTHORA MUNIPURENSIS, *Godwin Austen.*

J. Gould & W. Hart del. et lith.

Walter imp.

SUTHORA MUNIPURENSIS, G.-Austen & Walden.

Munipur Suthora.

Suthora munipurensis, Godwin-Austen & Walden, Ibis, 1875, p. 250.

——— *daflaensis*, Godwin-Austen, Ann. Nat. Hist. 4th series, xvii. p. 32.

THE species of the genus *Suthora* divide themselves naturally into two groups—those whose plumage is parti-coloured, and those whose plumage is more or less uniform. To the latter belong several species, such as *Suthora brunnea*, *S. webbiana*, and others already figured by me in the present work; while to the parti-coloured group, which, moreover, invariably have a black throat, belong the present bird and its allies. The *Suthora munipurensis* is very closely allied to *S. nipalensis*, but is distinguished by the ear-coverts being grey instead of tawny-coloured, by the white eyebrow and narrow line of black along the sides of the crown. The typical specimen was obtained by Mr. William Robert near Karakhul, Munipur hills.

Major Godwin-Austen is generally so correct in his discrimination of species that I regret to have to differ from him in any way; but I cannot allow that his recently described *Suthora daflaensis* from the Dafla hills is really specifically distinct from *S. munipurensis*. He writes:—"The difference between them is most marked on the undersides, the chin being grey in the Dafla bird, paling on the upper breast and belly to dull yellowish white, while in the Munipur and Nágá species the chin and throat are deep black, fading to grey on the breast, into the white of the lower tail-coverts. There is also a marked difference in size, this new form being the smallest of the genus now known. It was met with in the bamboo underwood of the forests at 5000 to 7000 feet, Dafla hills, and first obtained on the slopes of Torúpútú Peak in January." As Major Godwin-Austen was so kind as to submit his typical specimen of *S. daflaensis* to me, I can only say that I regard the slight differences above noted as due to age or seasonal plumage.

The following is the original description of the species, published (*l. c.*) by the authors quoted:—"Crown of head cinnamon-brown, becoming more olivaceous or fulvous green on back; shoulder of wing greenish umber; primaries black, the first four edged white, the rest crossed with a bright fulvous bar on the outer webs; the secondaries edged broadly with fulvous, and a few of the last tipped white on inner web; tail ruddy fulvous at base, paling towards the end, which is dusky and indistinctly barred; a broad supercilium black; lores and a narrow circle round the eye pure white; ear-coverts and side of neck grey; chin and throat black, merging into pearly grey and white on the breast; under tail-coverts pure white. Length 4·5 inches, wing 1·8, tail 2·4, tarsus ·77, bill at front ·28.

On the eve of going to press, and before his starting for India, I received Major Godwin-Austen's sanction to place his *S. daflaensis* as a synonym to the prior-named species *S. munipurensis*, which I have accordingly done.

The birds in the Plate are drawn from Major Godwin-Austen's typical specimens, and of the natural size, for the loan of which I am much indebted.



SUTHORA NIPALENSIS, *Hodgs.*

J. Gould and H. C. Richter del et lith.

Hullmandel & Walton imp.

SUTHORA NIPALENSIS, *Hodgs.*

White-faced Suthora.

Suthora Nipalensis, Hodgs. Ind. Rev. 1838, p. 32.—Blyth, Cat. of Birds Mus. Asiat. Soc. Calcutta, p. 102.—
Bonap. Consp. Gen. Av., p. 334.

Temnornis Nipalensis, Hodgs. Journ. Asiat. Soc. Beng., vol. xiii. pl. in p. 450.

——— *atrifrons*, Hodgs. Proc. of Zool. Soc. 1845, p. 31.

MR. HODGSON described and made known to science the present pretty species, in the "Indian Review" for 1838, under the name of *Suthora Nipalensis*; subsequently, if I mistake not, this gentleman applied the name of *Temnornis atrifrons* to the same bird. In the British Museum collection there are several specimens, which precisely accord with each other, except in the colouring of the head and cheeks, some having those parts blue-grey, while in others the prevailing tint is nearly red; and until positive evidence to the contrary has been obtained, I cannot but consider these two birds as one and the same species; yet I am at a loss to know why these varieties have not been noticed by such an observant naturalist as Mr. Hodgson, who distinctly states the crown of the head to be blue-grey, like that of the upper bird in the accompanying Plate. If these birds should prove to be identical, of which I have but little doubt, it will be interesting to know if the variation in colour is due to age or sex, a fact which can only be satisfactorily determined in the native country of the species.

In the short note accompanying his description Mr. Hodgson says, "This bird is a native of the central and northern regions of Nepaul," and adds, "that it is observed in the Cachâr in small flocks, frequenting brushwood and tall grass; habits, manners and food of *Parus*, of which it has the entire aspect; but besides its truncated bill it differs in its rounder wings, and in its larger and less arboreal legs and feet."

Crown of the head and back of the neck brownish grey; cheeks pure grey; face and superciliary stripes white, bounded above by a broad black line; chin transversely barred with black and rusty red; upper and under surface rusty red, fading into white on the centre of the abdomen; wings dark brown, the first two or three quills edged with white, the next two or three edged at the base with rufous, and the remainder edged throughout their entire length with the same colour, but a deeper hue; tail dark brown, edged externally with rufous; bill black at the tip and bluish at the base; legs fleshy white; iris dark brown.

In some specimens the crown of the head and cheeks are rufous; in other respects the colouring is the same.

The figures are of the natural size, on the *Pinus brunoniana*.



SCITHORA FULVIFRONS, Hedys.

J. Gould and W. C. Richter del et lith.

Hall & Wilson Imp.

SUTHORA FULVIFRONS.

Fulvous-fronted Suthora.

Temnornis fulvifrons, Hodgs. Proc. of Zool. Soc., Part XIII. p. 31.

Suthora fulvifrons, Blyth, Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 102.

ON the accompanying Plate I have figured another of the rare and little-known birds of the rich district of Nepaul, of which no specimens occur in the continental collections, rich as most of them are in Indian productions. Elegant in all its proportions and cheerful in its colouring, this species has especial claims to our notice, and it is very desirable that some information should be obtained as to its habits and economy. The specimens in the British Museum collected by Mr. Hodgson offer but little difference, either in their size or colouring; and we have yet to be informed by persons resident in the country, whether any difference occurs in the colouring of the sexes, and for the procuring of what peculiar kind of food the singularly truncate bill of these birds is adapted.

General plumage rusty red; ear-coverts grey, below which the cheeks are whitish; superciliary stripe brown; primaries and apical half of the tail-feathers brownish black; edges of the primaries, rump, upper tail-coverts and base of the tail lively red; bill vinous flesh with a dusky ridge; breast sandy red, passing into grey on the belly; feet fleshy white.

The figures are of the natural size, on the *Ceropegia pubescens*.





SUTHORA WEBBIANA, G. R. Gray.

J. Gould and H. C. Richter del et lith

Hollmondt & Walton Imp

SUTHORA WEBBIANA, G. R. Gray.

Webb's Suthora.

Suthora Webbiana, G. R. Gray, in Proc. of Zool. Soc. 1852.

A SINGLE specimen of this new bird graces the national collection at the British Museum ; to which it was presented by Mr. Webb, a gentleman who has been instrumental in introducing to our notice considerable collections of birds and quadrupeds from the neighbourhood of Shanghai in China, in which district the present species was collected. It is in every respect a typical *Suthora*, and far exceeds in size both *S. Nipalensis* and *S. fulvifrons* ; independently of size, it also differs from them in its more quiet and sombre colouring. It was brought under the notice of ornithologists at a late Meeting of the Zoological Society of London by Mr. George Robert Gray, who gave it the specific name of *Webbiana*, as a compliment to the donor of this and many other interesting birds to the British Museum.

In order to give variety to the accompanying Plate, the bird has been figured in two positions.

Crown of the head and back of the neck sandy red, passing into the olive tint of the back and upper surface generally ; tail of the same colour, but of a shade darker than the back ; primaries strongly edged with bright rufous ; throat and breast light buff, washed with a rosy tint ; abdomen inclined to olive ; bill light brown, washed with rosy pink ; legs either yellow or fleshy white.

The figures are of the natural size.



PARADOXORNIS AUSTENI, Gould.

Gould & Miller, 727 of 1860.

Walters, Imp.

PARADOXORNIS AUSTENI, n. sp.

Austen's Paradoxornis.

As long ago as 1836 I published the first species of the remarkable genus *Paradoxornis*; and ever since that time it has been a disputed point amongst ornithologists as to where this genus should be placed in the natural system; it has found various positions, being by some referred to the Timaliidae, and by others to the Fringillidae. Since the genus was first instituted by me, several allied forms, such as *Suthora*, *Cholornis*, &c., have been discovered; and *Paradoxornis* itself now numbers several representatives. The smaller forms like *Suthora* appear to lead off towards the Paridae, and *Paradoxornis* to *Conostoma* and the Timaliidae; whilst *P. Heudei*, belonging apparently to another subgenus which may be called *Calamornis*, is so closely allied to *Calamophilus*, that I have no doubt in my own mind that they form together a natural group.

But we must now speak of the present species, one of the novelties which has rewarded the energy of Major Godwin-Austen, who has done so much to enlighten our ignorance of the little-known birds of the hill-country on the north-eastern frontiers of our Indian Empire; and I have accordingly named it after him.

There can be no doubt that *P. Austeni* is very closely allied to *P. flavirostris*; but it has no black throat, this part being white, with a few black spots on the fore neck; and as these characters appear to be constant, I have no hesitation in describing it as a new species.

Major Godwin-Austen sends me the following note on the present bird:—"Of the lighter-coloured species, which you propose to honour me by naming after me, I obtained five specimens, all precisely alike—two in the Naga Hills near Kuchai, the others at Shillong in the Khasi Hills, in both localities at an elevation of from 5000 to 6000 feet above the level of the sea. These hills are well wooded in parts, with open grass-lands. A specimen from the Naga Hills measured in the flesh—length 7·8 inches, wing 3·3, tail 4·1, tarsus 1·05, bill, from front 0·67, from gape 0·4. Legs plumbeous, with a slight tinge of green; bill yellow. The dark-coloured bird (*Paradoxornis flavirostris*), of which I left one specimen with you, I obtained in the great beels (marshes) near Bolagunj, on the south side of the Khasi Hills, where it was the only form seen in December and April; it evidently breeds there. This very low marshy tract is covered with high grasses (from 12 to 18 feet high), dense thickets of a rose, and bulrushes, but no trees."

Above very pale brown, the tail almost uniform with the back, and showing some slight barring when held away from the light; wings rather darker than the back, the inner webs of the quills deep sepia-brown; entire head and hind neck pale sandy rufous; lores, feathers all round and below the eye, as well as on the fore part of the cheeks, buffy white; ear-coverts black; sides of neck very pale sandy buff; under surface of body buffy white, more fulvous on the sides and flanks, the chin slightly blackish, and the fore neck marked with a few triangular spots of black; under wing-coverts clear fulvous, like the inner lining of the wing.

The figures in the Plate are of the size of life.



PARADOXORNIS HEUDEI, *A. David.*

J. Gould & W. Hart del. et lith.

Walter. Sculp.

PARADOXORNIS HEUDEI, A. David.

Père Heude's Paradoxornis.

Paradoxornis Heudei, David, Comptes Rendus, lxxiv. p. 1449.—Id. Rev. Zool. 1872, p. 359; J. Verr. N. Arch. Mus. ix. Bull. pl. 4. fig. 2.

FROM a very early period of my ornithological career I have always been led to expect to see a true *Calamophilus* from Eastern Asia; but up to the present time this has never turned up. On the other hand, a new and highly interesting sedge-loving bird has lately been described by Père David, and skins forwarded to this country for Mr. Swinhoe's collection. I herewith offer my best thanks to the last-named gentleman for the loan of these specimens, and am sure that the birds now figured will be full of interest to the ornithological public. In colour, general markings, and softness of plumage the present bird is almost similar to our own Reedling; and it is principally in its larger size and *Paradoxornis*-like bill that the greatest differences are observable.

The following is an extract from the original account of the species by Père David:—"Père Heude, a missionary at Shanghai, actively busies himself with studying and collecting the natural productions of the province in which he resides. Among the birds shown to me by him during a recent visit to that town, are several not yet included in the ornithological catalogues of Chinese birds. I now refer specially to a very interesting form belonging to that curious group of insectivorous birds which is represented in Eastern Asia by the genera *Conostoma*, *Cholornis*, *Paradoxornis*, and *Suthora*. The bird I allude to appears to me to be intermediate between these last two genera, and might perhaps constitute the type of a new one. I range it provisionally with the genus *Paradoxornis*, of which it exhibits the most important characters. Père Heude having permitted me to take a description of the bird, which is unique in his collection, I hasten to transmit it, feeling that it is at the same time my duty to dedicate this new species to him by the name of *Paradoxornis Heudei*."

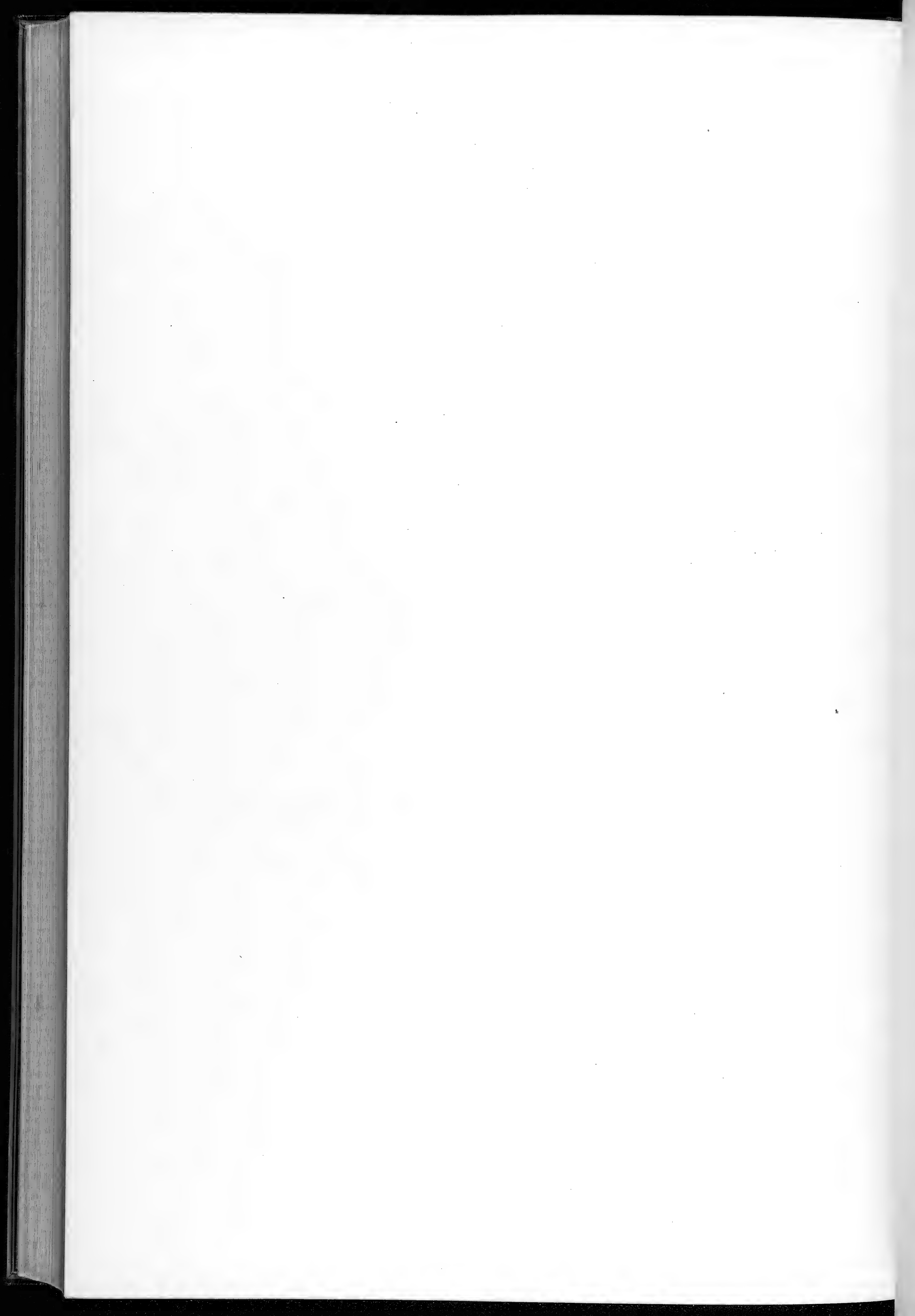
My kind friend Consul Swinhoe has also communicated the following extract from a letter received from Père Heude, and dated "Sikaiwei, Sept. 29th, 1873." He writes:—"The Kiang-Sou *Paradoxornis* frequents the large reeds. When they are cut down it takes refuge in those which are kept in a reserve-store in the enclosures of gardens &c.; I have not seen it on bushes. It extends, to my knowledge, the length of the Yang-tsze river from Kin-Kiang to Nanking and Kew-Kiang, on the edge of the great lake Hang-tse. It flies in company, like its near ally *Suthora*, making a great noise when climbing up the dry reed-stalks, which it attacks vigorously from the bottom, examining each stalk to its top, and then passing on to another. Its song is a warbling 'rè-ri-ri,' sonorous and melancholy. When one is fully accustomed to the note it can be distinguished from afar, the birds calling to one another without ceasing. They are very easily approached, and are not wild. Length of male 0.19 mill., of female 0.16 mill. Iris rosy red. These dimensions are extreme; and there are slight differences between these limits."

The accompanying descriptions are from Mr. Swinhoe's specimens.

Adult male.—Head and hind neck grey, gradually assuming a lilac shade on the interscapular region as it passes off into the chestnut back, the upper part of which is slightly streaked with dark brown; on each side of the crown a narrow line of black extending down the sides of the neck; lores and sides of face light greyish white; throat white; fore neck whitish, tinged with lilac; upper breast chestnut-maroon, the rest of the under surface fulvous fawn-colour, lighter down the middle of the abdomen and under tail-coverts; under wing-coverts whitish, as also the edge of the wing; upper wing-coverts deep chestnut-maroon; quills sepia-brown, externally washed with rufous, extending round the tips and some way up the margin of the inner web, the secondaries margined with whitish buff, the innermost broadly black in the centre, the half of the inner web white for its whole length, forming a distinct longitudinal streak down the sides of the back; rump straw-coloured, the upper tail-coverts paler; tail black, with conspicuous white tips to the feathers, more or less shaded with fawn-colour, the two centre feathers fulvous fawn-colour, deeper on the margins.

Adult female.—More dull-coloured than the male, and with a much smaller bill; all the colours less intensified, the maroon of the back absent, and the head nearly uniform with the back, having only a very slight tinge of grey.

Both sexes are represented in the Plate, and are life-size.





PARADOXORNIS FLAVIROSTRIS, Gould

J. Gould and H. C. Richter del et lith

Hallenedel & Walton Imp

PARADOXORNIS FLAVIROSTRIS, *Gould.*

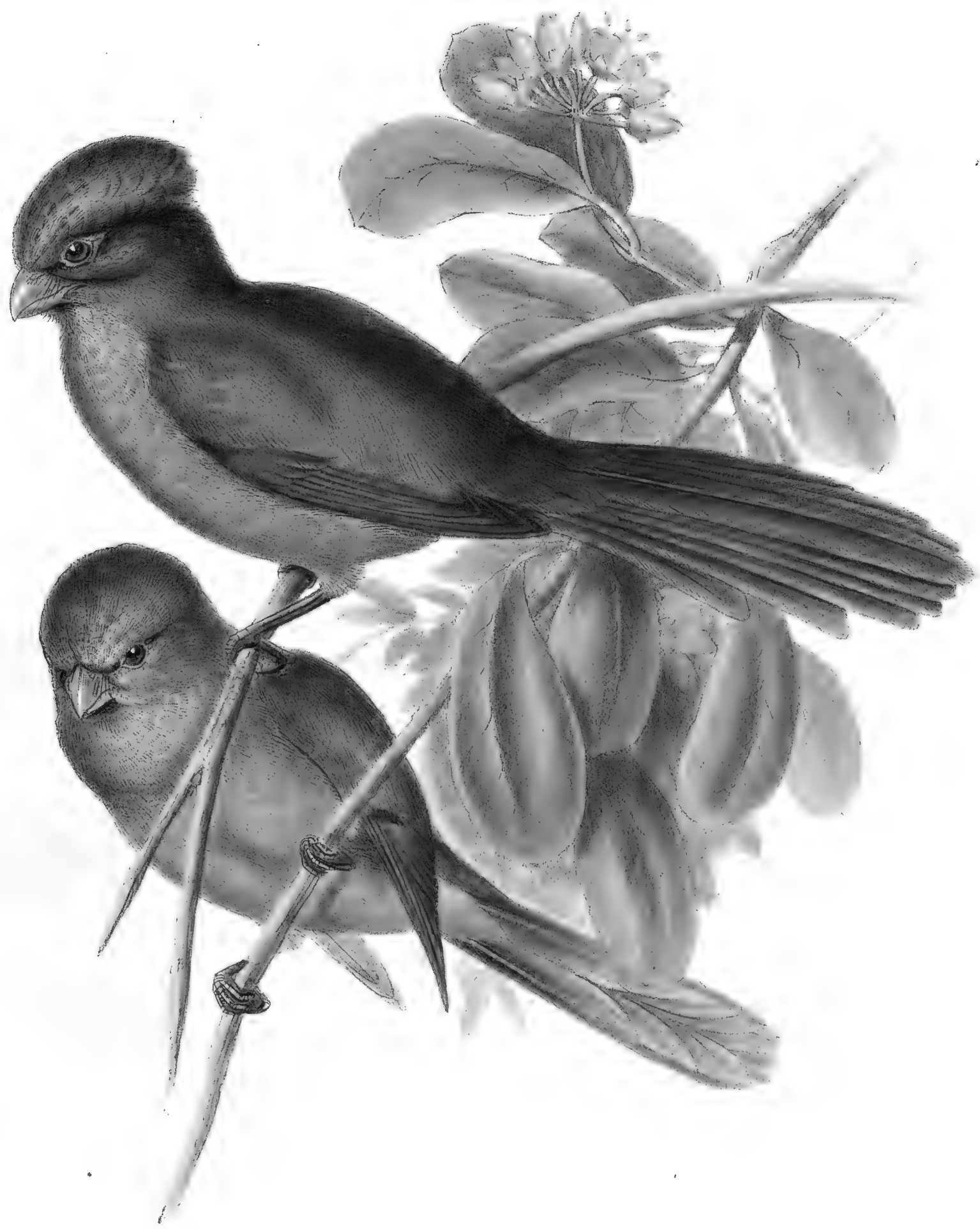
Paradoxornis.

Paradoxornis flavirostris, Gould in Proc. of Zool. Soc. pt. iv. p. 17.—Ib. Mag. of Zool. and Bot. vol. i. p. 62.—Ib. Icones Avium.—Horsf. and M'Clell. Proc. of Zool. Soc. part vii. p. 164.—Gray and Mitch. Gen. of Birds, vol. ii. p. 389, *Paradoxornis*, sp. 1.—Blyth, Journ. Asiat. Soc. Beng. vol. xiv. p. 578.—Bonap. Consp. Gen. Av. p. 500, *Paradoxornis*, sp. 1.—Moore, Cat. Birds in Mus. East Ind. Comp.
Bathyrhynchus brevirostris, M'Clell. Quart. Journ. Calcutta Med. and Phys. Soc. 1837.—Ib. Ind. Rev. 1838, p. 513, with a figure.

PERHAPS there is no one of the smaller Insessorial birds which has excited more interest among ornithologists than the present very singular species, which I had the pleasure of first making known to science in the year 1836; nothing was then known respecting its history, and we are still uninformed as to its habits and economy, or for what purpose its remarkably formed bill is especially adapted. It is a species of great rarity, so much so, indeed, that I know of no continental collection which is graced by a specimen; our National Museum, however, as well as those of the Honourable East India Company and the Zoological Society, all contain examples. The sexes appear to offer little external difference either in size or colour. Mr. Hodgson has sent specimens to the British Museum from Nepaul, and Mr. M'Clelland to that of the East India Company from Assam; these countries therefore may be considered to constitute its true habitat.

Crown of the head and back of the neck dull rufous; upper surface, wings and tail sandy brown; face and throat white, mottled with black; ear-coverts jet-black; under surface pale sandy brown, with a large blotch of black on the breast immediately below the mottled feathers of the throat; bill rich orange-yellow; tarsi and feet olive-green.

The figures are of the natural size.



PARADOXORNIS UNICOLOR.

Gould and H. C. Richter del. et lith.

Hellmuth del. a. Wilson. Imp.

PARADOXORNIS UNICOLOR, *Hodgs.*

Long-tailed Paradoxornis.

Heteromorpha unicolor, Hodgs. Journ. Asiat. Soc. Beng. vol. xii. p. 448, with a figure.—Gray's Zool. Misc. p. 84.—Blyth, Journ. Asiat. Soc. Beng. vol. xiv. p. 578.

Paradoxornis unicolor, Hodgs. Cat. of Birds of Nepal, p. 111.—Gray and Mitch. Gen. of Birds, vol. iii. App. p. 18.—Bonap. Consp. Gen. Av. p. 500, *Paradoxornis*, sp. 3.—Moore, Cat. Birds Mus. East Ind. Comp.

MR. HODGSON, who has contributed so largely to our knowledge of the ornithology of Nepaul, is the discoverer and describer of this new species of *Paradoxornis*, which he considered to be distinct from the type of the genus, and for which he therefore proposed the term *Heteromorpha*: it is true that the bill is not so deep, is less flattened on the sides, and has straighter tomixæ, and that the plumage is more lax and loose in its texture; still the bird, in its general aspect, in the form of its wing, and in its large feet, is truly a *Paradoxornis*; I am therefore induced to regard the differences above mentioned rather as specific than generic.

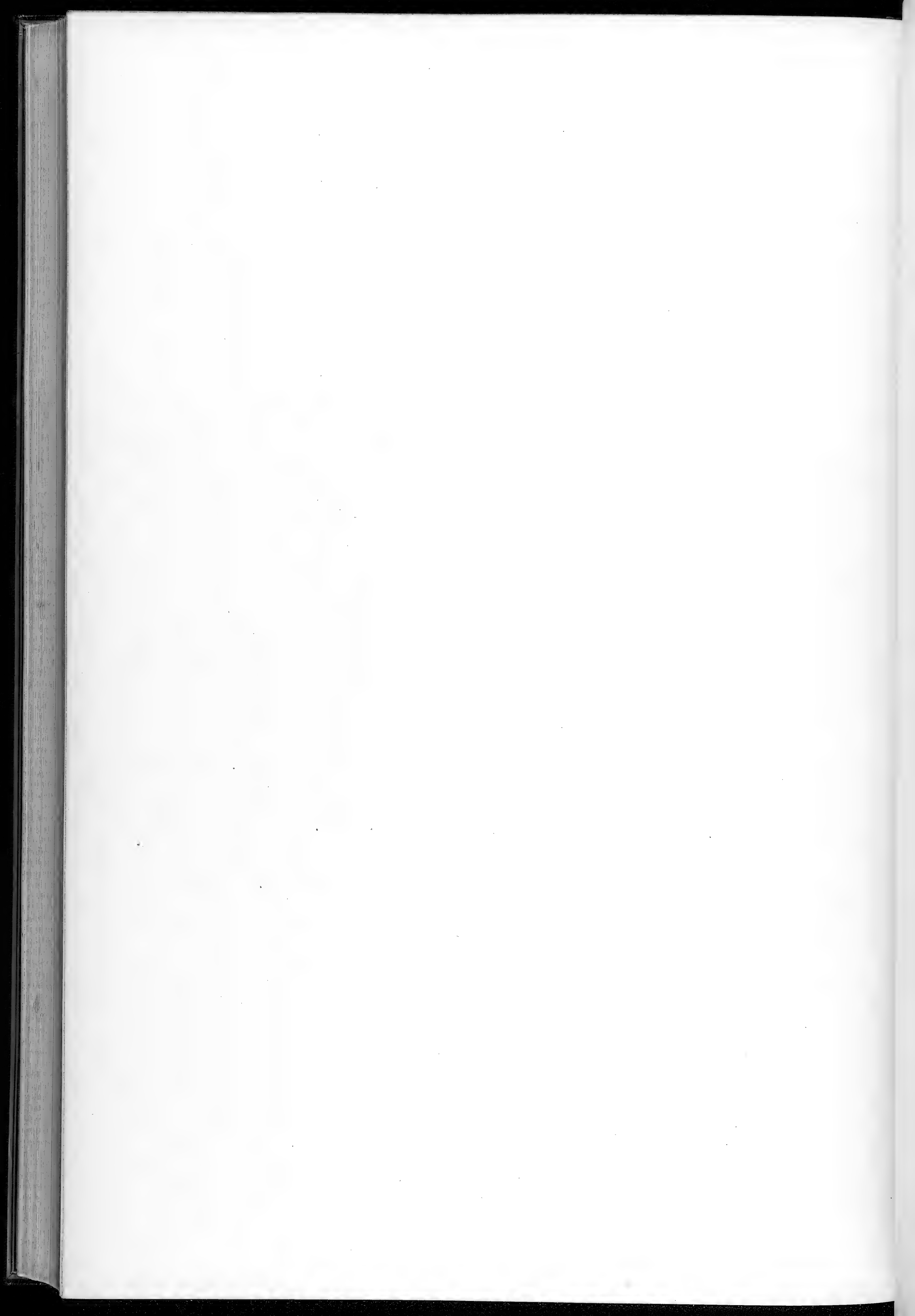
Mr. Hodgson states that it "inhabits the thick brushwood of the Cachâr of Nepaul; frequently alights on the ground, but seems to feed aloft on wood bugs and other hard tree-insects; occurs in small flocks, and is not noisy."

Judging from the other species, we may infer that there is no difference in the colouring of the sexes.

Specimens of this rare bird are contained in the collection at the British Museum and in that at the East India House.

All the upper surface, wings and tail rufous brown; the feathers of the forehead and face edged with grey; breast greyish brown, passing into pale rufous brown on the abdomen; under side of the shafts of the tail-feathers yellowish; bill orange-yellow; feet greenish.

The figures are of the natural size.





PARADOXORNIS GULARIS, *Horsf*

J. Gould and H. C. Richter del. & lith.

Hillman & Walton, Imp.

PARADOXORNIS GULARIS, *Horsf.*

Grey-crowned Paradoxornis.

Paradoxornis gularis, Horsf. MSS.—Gray and Mitch. Gen. of Birds, vol. ii. p. 389, *Paradoxornis*, sp. 3. pl. xciv. fig. 2.

—Bonap. Consp. Gen. Av. p. 500, *Paradoxornis*, sp. 2.—Moore, Cat. Birds Mus. East India Comp.

Paradoxornis (*Heteromorpha*?) *caniceps*, Blyth, J. A. S. vol. xviii. p. 810.

Heteromorpha? (*Paradoxornis*?) *caniceps*, Blyth, Cat. of Birds in Mus. Asiat. Soc. p. 102.

A SINGLE example of this rare species of *Paradoxornis* has been sent to the Museum of the Honourable East India Company by Mr. Pemberton, from Bhotan. I find Dr. Horsfield's MS. name of *gularis* attached to this specimen, and under that appellation it has been published by Messrs. Gray and Mitchell in their "Genera of Birds" above quoted. I believe the specimen referred to is the only one in this country; the bird appears to be known to Mr. Blyth, and to have received from him the appropriate name of *caniceps*, which, however, cannot be retained, in consequence of its not having been published until after that of *gularis* had been assigned it by Dr. Horsfield.

In his Catalogue of the Birds in the Museum of the Asiatic Society of Bengal, Mr. Blyth questions whether this bird belongs to the genus *Paradoxornis* or to *Heteromorpha*; the latter term, however, having been given to a species which I can see no sufficient reason for separating from the true *Paradoxorni*, I apprehend that if the present bird and the *P. ruficeps* are to be separated, they must receive an entirely new generic appellation; for the present therefore I prefer to retain them in the genus *Paradoxornis*.

Forehead, a line passing over each eye to the occiput, and a mark down the centre of the throat black; crown of the head and cheeks grey; upper surface and wings pale reddish brown; primaries dark brown, edged with pale reddish brown; tail light brown; circle round the eye, lower part of the cheeks and under surface cream-white, tinged with buff on the flanks; bill orange-yellow; feet greenish.

The figures are of the natural size.





PARADOXORNIS RUFICEPS.

J. Gould and H.C. Richter, del et lith.

Hallward & Walton, imp.

PARADOXORNIS RUFICEPS, *Blyth*.

Red-headed Paradoxornis.

Paradoxornis ruficeps, Blyth, Journ. Asiat. Soc. Beng. vol. xi. p. 177, and vol. xii. p. 1010, with a figure.—Tickell, Journ. Asiat. Soc. Beng. vol. xvi. p. 446.—Gray and Mitch. Gen. of Birds, vol. ii. p. 389, *Paradoxornis*, sp. 2, pl. xciv. fig. 1.—Bonap. Consp. Gen. Av. p. 500, *Paradoxornis*, sp. 4.—Moore, Cat. of Birds in Mus. East Ind. Comp.

Heteromorpha ruficeps, Blyth, Journ. Asiat. Soc. Beng. vol. xiv. p. 578.—Ib. Cat. of Birds in Mus. Asiat. Soc. Calcutta, p. 102.

THIS species may be at once distinguished from its congeners by the rich rufous colouring of its head and cheeks. Like the other members of the genus, it inhabits the eastern parts of the great Himalayan range, Nepaul, Sikim and Bhotan constituting its native habitat, and like them also is extremely rare in our collections.

Captain Tickell remarks, "I have killed several specimens of this bird, and often watched its actions in a wild state at Geeng near Darjiling, and I cannot agree in opinion with those who class the group to which it belongs with the *Crateropodines*. It is a great devourer of grain, maize, rice and buck-wheat, which latter is common in Nepaul; it perches on the tops of high trees as well as bushes when off its feed, and in fact in none of its manners does it resemble the thicket-loving, skulking habits of the *Crateropodinae*."

The female appears to resemble the male in colouring; at least the examples I have seen, which I believe to be of that sex, do not offer any difference in appearance.

The specimens in the British Museum were sent to this country by Mr. Hodgson; those in the Museum of the East India Company by Mr. Pemberton.

Head and cheeks rich rusty red; back, wings and tail pale reddish brown; chin, breast and abdomen cream-white, washed with buff on the flanks; bill orange-yellow; feet greenish.

The figures are of the natural size.





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